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THE EDUCATION OF THE PUBLIC.

WE fell into conversation the other day with an architect on the subject of the education of the public in architecture. It was not he who started the topic, but as his name is fairly closely connected with architectural education it seemed, as we thought, a theme in which he would be likely to be interested. He rather abruptly contributed the opinion that it was a matter about which architects and boards of architectural education had better not bother their heads or waste their time. "But surely," we suggested, "we are looking forward to a great architectural impetus in our country whenever conditions of peace allow the arts of peace to have a fresh renaissance, and is not this a time in which we might strive as we have never striven before to get the public of England to give that increased and intelligent consideration to the art of architecture which can only come as the result of some degree of knowledge?" This, or something like it, was what our friend said: "Your expectations are probably based on the notion, often expressed, that the British public do not give architecture its due because they do not understand it as they understand painting and sculpture. Teach them enough to make their knowledge of architecture equal to their more easily acquired connoisseurship of the two sister arts and they will yield to the beauties of good building craft just as at present they admire and sometimes buy the works of sculptors and painters. But all this argument is based on a double misunderstanding. It rests upon a ridiculous over-appreciation of the public knowledge of the pictorial and plastic arts, and also rests upon a still greater depreciation of the mysteries of architecture. Happily, it is true that there are many men and women in the world of those who are not themselves artists who are blessed with a sincere and undoubted taste in all three arts. They are not the ruck of mankind. The world in general can never have that knowledge or that taste; and even these choicer spirits are helped to their standard of knowledge by the still greater and humbler knowledge that they do not know all. In fact, they have a respect for artists, which means that they are aware of the possibility that artists may know more about their respective arts than the best of their outside critics.

"The common man is omniscient in these things; he does not know where knowledge begins, and consequently, seeing nothing of any importance below the surface, he concludes that the surface is all there is to see. Painting and sculpture are, among other things, imitative arts. They happen, among their other functions to represent persons, landscapes and things in general. Even children can judge whether mother's portrait is like mother, and can form some idea (not so easy a process this) of whether father's bust is like father. But this imitative side of the two arts is enough for ordinary folk, and they conclude that the whole duty of painting and sculpture is to be a mirror to nature. Architecture puzzles them, though they understand size, they understand ornament (more or less) and they understand that whatever is old is good (which it isn't). But the fact is that, difficult as it would be to make the millions rise by education to a real and useful appreciation of painting and sculpture, the task of leading them to a knowledge of what architecture really stands for would be Herculean.

"Not many years ago, you will remember, a man of wide learning, and perhaps wider writing, made a cultured attack on the 'outworn shibboleths' (or something of the kind) of those architects who value tradition. If you are to get that sort of criticism from a man of real thought and logical mind, what are you to expect from smaller brains?" We ventured to suggest that University Extension Lectures and other public utterances by capable architects had in the past done a good deal to stimulate in young persons and in amateurs a useful interest in the art. "Yes," he answered; "you have got the right and the only permissible word at last. Interest—a word which, by the way, you cannot define—is the most we can instil. But to use the amazing word education for the mere driblet of knowledge which can be poured on to or into the heads of unarchitectural Britons is to belie or belittle altogether the lifelong steeping and study by which an architect equips himself for his priesthood in the ancient mystery." We take it there is a fallacy somewhere here, since music and poetry (for example) necessarily earn their living by appealing to readers and hearers who are neither professional poets nor musicians. Our friend would probably explain this by suggesting that the "musical" world contains a good many people who pretend to more enjoyment than they really experience, and that literary knowledge is essentially common to all persons of culture.

In any case, we put the matter to him in another and broader light, thus: "All arts depend ultimately for their life and welfare upon the power of giving some enjoyment to the public; the more the public understands, the better the public will enjoy; consequently, any means taken for stimulating the understanding directly increase the enjoyment and thereby encourage the art." This seemed to us a plain and clear statement of the issue, so we commended it to our friend's consideration. His answer was rather baffling: "Your argument," he said, "is sound, but are your grounds correct? I am not at all sure that they are. It is not to me at all certain that architecture is on all fours with the other arts in regard to its relation to the public. People will pay a shilling to see pictures; they will also pay a shilling to see certain kinds of sculpture if it is well advertised and guaranteed to be eccentric. Also they will undoubtedly pay anything up to a guinea to hear music; but put architecture to the test of providing a separate turnstile for the architectural room at the Royal Academy, and what would happen? In the course of the season you would, on a threepenny entrance fee (tax included) collect £5, derived from 400 architects.

"You will meet this by the assertion that the education you recommend would convert the £5 into £50—(that I should politely deny)—and you will further plead that members of the public really do pay for architecture hundreds and thousands of pounds by employing architects to design their buildings. But the fact is that the people who employ architects are mainly of two classes, neither of which would be seriously affected by this education scheme. One class contains the folk who engage an architect because an architect is the handiest medium for tackling a builder (just as, for example, a solicitor affords the recognized machinery for obtaining the services of a barrister); and the other class—the wiser and the better—is composed of those hard-headed business men who know that there really is an art called architecture which is essential to effective building, and who engage an architect trusting him to know more about his own art and business than they do. Both classes obtain architecture in return for the money they expend; the first not knowing or greatly caring whether they obtain it or not; the second, knowingly and willingly, but without going into the matter themselves as critics.

"Having said all this," he added, "I am going to admit, with seeming but not real inconsistency, that of all my work that which I have enjoyed the most has been done for certain clients who very definitely had acquired, by their own inclination, an education in architecture.

NOTES.

Our War Aims. ALL welcome the definition of our war aims by the Prime Minister, though much may happen before it is within our power to effect them. Meanwhile, we shall have to possess ourselves both with patience and determination and to place little reliance in any general statements of intentions for the future that may emanate from Germany. The Company of Ropers of Newcastle-upon-Tyne had a most excellent motto, "May hemp bind those whom honour won't," and we should not be too willing to accept statements of repentance. Europe will have a secure peace when the Allies are in a position to enforce it, and not before, for when that time comes hemp will bind those who have shown a total disregard for considerations of honour. Though it is probably true that honesty is the best policy, we must all have reasonable doubts of those whose conduct rests on no more certain base than that of temporary expediency, and if we are wise we shall not, like the Bolsheviks, disband armies before we are certain that our ends are achieved.

The R.I.B.A. Meeting. WE are very glad to record the welcome news that the R.I.B.A. endorsed, on Monday, the resolution submitted on the subject of the continuance of building restrictions after the war. The right procedure in this, as in other like cases, is for the authorities to make out a convincing case for control before putting it into operation, not to obtain a blank cheque beforehand to be used or withheld as they think best. Mr. Slater, who seconded the motion, and Sir Aston Webb and Mr. J. S. Gibson, who supported the resolution, are responsible for the result achieved, which we trust will be followed up by the adoption of a firm and definite attitude on the part of the Institute. "Unto him that hath shall be given," and we frequently find in our life that to those who have courage in their opinions and tenacity in supporting them success comes more readily than their most sanguine expectations would seem to justify, while it is certainly true that from those who have not is taken away even more than one would imagine would be possible.

A Question and possibly a Solution. MR. RUTHEN drew a vivid picture at the meeting of the house shortage in South Wales even before the war. There were, he said, 60,000 houses wanted, and in numbers of cases the shortage was such that beds were never cold. He warned the meeting that unless the want was remedied revolution might occur. In South Wales the colliers' wages are regulated by the selling price of coal, according to a sliding scale fixed by representatives of labour and capital, and in South Wales, wages, owing to the selling price of steam coal, are usually higher than elsewhere. But we have heard that colliers often will not consent to work more than four days a week, and this fact may, it seems, have an important bearing on the amount of rent they are willing to pay and the accommodation they can obtain. If the middle classes refused to work more than four days a week and then complained that they could not get sufficient house accommodation at £20 a year, and that what they could get was insufficient in size, would anyone listen to a demand that the State should supply the deficiency? We think it unlikely, and would also direct attention to a well-known fact, that a large section of the better paid classes of workers are unwilling to spend a similar proportion of their income on house rent that the middle classes do. We think the essential condition should be that wages should be adequate in amount to cover the reasonable cost of living and something over, and this we believe employers generally recognise, only stipulating that they shall have a *quantum meruit*. And if this be so, accommodation will be forthcoming for the workers just as it is for other classes without the necessity of State or municipal intervention. Meanwhile we should not be unduly alarmed if we hear threatenings of social revolution from those who have it in their power to largely increase their earnings. Our conclusion would naturally be vitiated if it is unreasonable to expect the collier to work more than four days a week.

The Workmen's Compensation War Additions Act. IN a case reported in our Law Reports on December 28 a man had been injured by accident on August 22, 1917, and claimed compensation. The County Court Judge awarded him the full compensation under the Workmen's Compensation Act, £1, and a war addition from the date of the accident. It was contended that the war addition of 5s. could only be given from the date at which the new Act came into force, viz., September 1, but the learned Judge said he read the Act as being retrospective, and made the award. Only five shillings was involved in this case, and the Judge said that if it was desired he would go thoroughly into the point, but at present that was his reading of the Act. If the Act were to be treated as retrospective in other cases, larger sums might be involved, so it may be well very shortly to consider this question, as we think it can be shown that the Act is not retrospective. By section 1 it is provided that, where any workman is at any time during the period for which this Act continues in force entitled during total incapacity to a weekly payment by way of compensation under the Workmen's Compensation Act, 1906, he shall, whether the incapacity arose before or after the commencement of this Act, be entitled" to an addition equal to one-fourth of the amount of the weekly payment. By section 3 the Act is to come into operation on September 1. As there is no mention of the Act being retrospective, we submit it is clear that the additional payment can only be claimed, according to section 1, "during the period for which this Act continues in force," *i.e.*, from September 1 until its repeal, and not retrospectively.

The British Museum. WE are glad that the proposals of the authorities to take over the British Museum and Natural History Museum are meeting with such widely spread opposition, but it is by no means certain that the protests, sound as they are, will have the desired effect. The official mind probably argues that the best way to impress the public with its vigorous desire to prosecute war is by taking some unusual and even unpopular step which, like the exposure of the Spartan children on Mount Taygetus, will show its unflinching purpose. Probably the burning of the Alexandrian Library at the command of the Caliph Omar was a step highly applauded by many of his followers, and we can quite imagine the Air Minister rousing enthusiasm among the Tyneside miners and saying, "Men of England, we have sacrificed all for our country; the Elgin marbles are now consigned to a coal cellar, the remnants of Ephesian Diana's fane now form a standing place for typists' desks. Perish art and expunge research, but win the war." We have no official information, and only suggest that this may be the method of reasoning of the heads of the new Department.

Sir Edwin Lutyens, A.R.A. WE were delighted to see the name of the most outstanding personality in the architectural profession among the list of those honoured in the New Year. It would probably be necessary to go back to Elmes to recall anyone who has occupied such a position in the architectural profession as Sir Edwin Lutyens did from the outset, but fortunately for us, while Elmes died before the great work which made his name could be completed, Sir Edwin Lutyens is probably only at the beginning of his career. His work shows a rare combination of freshness—which sometimes in the past has bordered on eccentricity—and scholarly genius, but we are glad to say that the last quality is more and more in the ascendant, as is evidenced by his later contributions to architectural design. It has seldom fallen to a man who became known by his domestic work to carry out the greatest buildings of one of the capitals of the world; it is even more rare that his work in the second capacity should show the promise of successful fulfilment which we have every reason to believe we may look for in Delhi.

A BUSINESS general meeting of the R.I.B.A. was held on Monday at the offices, Conduit-street, Regent-street, Mr. H. T. Hare, the President, in the chair.

On the motion of the President, seconded by Mr. George Hubbard, it was resolved to send messages of sympathy to Mr. Arthur Wells, of Hastings, Fellow of the Institute, on the loss of two sons in the war, and to Mr. T. Raffles Davison, hon. Associate, whose son, Mr. W. Rupert Davison, of the Middlesex Regiment, a young architect of great promise, was recently killed in action.

The congratulations of the Institute were offered to Sir Edwin Lutyens, A.R.A., upon the knighthood which was conferred upon him in the recent distribution of New Year honours, the President remarking that not only Sir Edwin but the entire architectural profession had been honoured by the distinction.

Mr. Herbert Wills then moved a resolution on the subjects of control of building after the war and housing:—

Mr. Wills said: I propose to deal very briefly with two subjects which may be taken to be correlated—the question of housing and of the control of building after the war. Important as it is, I hold that the urgency of the housing question has been considerably exaggerated, and that the statistics given should be taken *cum grano salis*, because the authorities who have a tendency to exercise authority autocratically in entirely new fields seem to be unduly influenced by the results of popular agitation, and to be willing to initiate new departures without sufficiently sifting evidence. Any far-reaching measures which may affect the destinies of the country in time to come ought, in justice, to receive the sanction of a Parliament elected on such issues.

The working classes are, in many cases, at present in receipt of wages which have no necessary relation to economic standards, for while wages would have been largely increased to meet the increased cost of living, they have, in many instances, been still further increased to offer inducements for the output of essential work. Labour has a tendency to believe that this state of things can be continued in the normal times of peace, which is a fallacy, since wages and conditions of employment must then be governed by economic conditions. Nor can voting strength affect this factor, for even if the State became the universal employer it would, in common with the capitalist, have to make a profit or go out of business.

No sane person wishes to withhold the proper due of labour, but before wages can be largely increased labour must give a *quantum meruit* in the shape of increased production. A demand for higher wages without an adequate return in the shape of service rendered, would bring the industries of the country to a standstill whatever government was in power, and after a period of damaging and disastrous deadlock, former conditions would re-assert themselves.

I believe the present demand for housing partly rests on a foundation of sand, for the following reasons:—Its amount and its local distribution depend on the nature and amount of trade and of agriculture. Trade must be enormously affected by the conditions of peace, which are wholly uncertain. We may have the old state of unrestricted competition, or we may not. The tariffs which now exist and limit our trade with the allied countries may or may not be modified, and we may or may not have to admit German manufactured goods as before. With regard to agriculture, much as we may wish to see more land under cultivation, it remains to be seen whether a sufficient inducement can be offered to the farming industry to bring about the desired result. Again, take emigration: we have absolutely no data to go on at present as to the number of those who will wish to leave the country after the war, while it is unfortunately impossible to form any estimate of the total loss of life the war will occasion. In view of all these uncertain factors I ask how can we arrive at present at any reliable statistics on the subject of housing?

Now private enterprise, up till the last eight or nine years, has been responsible for the provision of about 97 per cent. of the accommodation required. Largely in consequence of the Finance Act of 1909 the amount of housing was first halved and afterwards reduced to a smaller fraction of what it had been. The Act costs more to administer than it produces, and the Government have reluctantly pledged themselves to repeal it. You will note that the adoption of the Housing and Town Planning Act makes it impossible to obtain unduly inflated prices for land in the vicinity of towns, and that there is no longer the possibility of the public being "plundered," to use the current phrase. I think we should add our voice to those who have urged the Government to amend the Finance Act so that private enterprise may not be any longer discouraged.

There are also possible reforms in our system of rating which would, by a wiser distribution of its incidence, relieve building of all classes—and especially housing—of a grievous burden, which might enable housing schemes to be carried out despite the increased cost of building, with the result that the weekly charges of such property would not have to be materially raised and we should be able to build for rents which could be paid by the workers, thus doing away with the necessity for State subsidies.

I suggest that in view of the considerations I have alluded to, it is unwise to carry out a very large measure of immediate housing directly after the war; that it is unfair to private enterprise not to do at once what can be done to remove disabilities which have checked it, and that the policy of the Institute should lie in the direction of checking rather than accelerating what I hold to be a somewhat ill-judged propaganda.

For all the foregoing reasons I am totally opposed to the suggestion that the Government control of building shall be maintained after the war, and consider that housing should take its normal position among other branches of building industry. In any case, if great schemes of State-aided housing are to be carried out, the authorities concerned will be in a position to give large orders for material in bulk which will place them in a favoured position as compared with private individuals; and in consideration of this fact and of the assistance they will thereby obtain, will secure a practical precedence in the supply of materials without involving the necessity of control. And though, if control has to be, I would as soon see our President in the position of Controller as anyone I know, I believe it to be beyond any man's power to determine wisely whether A's building should have precedence over B's, or whether both should be side-tracked in favour of C. The President will be better employed in designing and carrying out excellent works of architecture than in the difficult task of holding the scales of justice in the dim twilight of many uncertainties and in trying to make out the resultant weights.

I now come to the last and selfish consideration, which may be bluntly stated as "what are we going to get out of housing?" and my opinion is that we shall get remarkably little, unless the bulk of it is done by private agencies. The authorities will, no doubt, add to their official documents expression of the pious hope that local bodies will employ the services of a trained and qualified architect; but they neither will nor can fetter the discretion of the people's representatives.

The country is going to be flooded with approved type designs, to the sum of which members of the Institute will add; and it is quite possible that sheets of details will be drawn out, showing the inner secrets of these very simple buildings. Already the Local Government Board of Scotland have issued an excellent pamphlet, illustrated with scale drawings, of types of house, with specifications and advice as to local materials; and I believe the Board of Agriculture and Fisheries have done even more with respect to rural housing in England. Now, seeing that every authority in the country has its surveyor, engineer or architect, and that under whatever name he is called the bulk of the electors' representatives consider he is an authority on matters of building and the planning and construction of streets—can we reasonably suppose that many of these authorities will seek and obtain outside expert help, for which they will have to pay fees? I say at once that it is not creditable to our intelligence that we should expect any such thing; and I go further—it is not expedient that we should by agitation in the matter provoke bad feeling, especially as I hold we are bound to come out under-dogs in the end.

For the reasons which I have briefly stated and many more I could mention if time permitted, I beg to propose the following resolution:—

> That in view of the extremely important interests involved, this Institute should take action in conjunction with other bodies to represent to the Government their strong objections to the continuance of the present system of restriction relating to building after the war.

Mr. John Slater seconded the resolution, remarking that he did so on slightly different grounds from those which had been put forward by the mover. There could, he said, be no doubt that during the past three years architects had been suffering from a state of affairs which had practically reduced some to penury, and had sadly impoverished many of the remainder. It was highly creditable to the profession that it had acquiesced in the restrictions that had been put upon building, without making any complaints. They had adopted that attitude because they considered it to be their duty to do so in the interests of the country. But if further restrictions were to be put upon building after the war they must reconsider their position. He did not believe it would be possible to form any body or to appoint any individual who, without inflicting great injustice, would have the power of saying that certain buildings should be allowed to be proceeded with and that certain others should not. The matter was one that not only affected architects, but the community as a whole. They were hoping when the war was over to see a number of industries established in this country which, up to the present, had been the monopoly of Germany. Those industries would require buildings and factories to accommodate them, and it was important that those buildings should be erected with the least possible delay after peace had been arranged. There were also many buildings being erected for municipalities and other public bodies, on which work had been stopped, and such buildings ought to be got on with at the earliest possible moment. It was hinted that the main problem in connection with building after the war would be the provision of houses for the working classes. He would be sorry to deny that the accommodation in that respect in some parts of the country was woefully deficient, but it was no use planning a large scheme of housing, if restrictions were to be put upon the erection of factories which would give the people employment.

Mr. Northover, Acting Secretary, read letters from Mr. Harry Gill, President of the Notts and Derby Architectural Association, Mr. W. K.

Gleave, Mr. Robert J. Wilson (Aberdeen Society) and Mr. Alan Pimm (Devon and Exeter Society) strongly supporting the resolution. Mr. Paul Waterhouse wrote that while he was in sympathy with the motives which prompted Mr. Wills' motion he thought it would be a mistaken policy on the part of the Institute to express its strong objection to the continuance of any system of control over building after the war. He hoped that if any resolution was passed it might be on the lines of strengthening the deliberations of their own executive rather than a frontal attack on the Government.

The President said that at the present time they had sitting at the Institute a conference composed of architects, surveyors and builders, and one of the suggestions for them to consider was that of control of the building trade after the war.

Mr. Mark Judge, who had given notice of an amendment to the resolution, said his position was that he agreed with every word that Mr. Wills had said, but he could not agree to the wording of the motion; it was far too wide. He believed that what Mr. Wills wanted the Institute to affirm was that they objected to a continuance after the war of the present restrictions, which had been imposed as a war measure.

Mr. Wills said that was his idea, and if it would meet the objection of Mr. Judge he would alter the latter part of the resolution to read, "to the continuance of the present war restrictions over building after the signature of peace."

Mr. Mark Judge said that in that form he could heartily support the motion and he would not move any amendment.

Mr. W. Woodward, speaking in support of the motion, said he thought they all agreed that it was only expedient that the Government should have control of building during the progress of the war, but it was not right that that control should exist in normal times. He gathered that it was the intention of the authorities to set up, or they were being urged to set up, an entirely new department in connection with the erection of working class dwellings. That would probably lead to the standardisation of plans and would be fatal to the proper execution of cottages in different parts of the Kingdom, where the materials appertaining to the different localities would fail to be taken into account. In his opinion private enterprise would do all that was necessary to provide working class dwellings and he would be very sorry if the Institute was to be any party to the formation of any Government Department which should have under its control the building of half a million houses partly assisted by public grants. The idea was to build cottages for what were termed the working classes, at the expense of the upper and middle classes, and let them at uneconomic rents. He strongly supported the object which Mr. Wills had in view, and he hoped that they would send a strong protest to the Government against the continuance of the present restrictions.

Professor Adshead said he was strongly opposed to the resolution. Mr. Wills had referred to the question of working class housing after the war, and there could be no doubt that that question was really at the root of the matter. It struck him that the Institute was not competent to decide as to whether houses were wanted or not. He thought it was generally recognised that some half-million working class cottages would be wanted after the war, and that about 75,000 houses had been built annually prior to the war, of which about 95 per cent. were put up by private enterprise. It was also well known that when there had been a shortage of houses owing to a rise in the cost of materials the houses had been crowded and the rents had not risen proportionately with the cost of the materials. There would be an abnormal condition of things prevailing after the war, and some extraordinary method would have to be adopted for coping with it. It seemed to him quite reasonable that the Government should assist in providing houses for the workers but even so they would never be able to build all the houses that would be required. There would be plenty of room for the private owner to compete—he could always become a contractor. He believed that in these projected municipal housing schemes the architect would have a larger share than ever before, and he himself had recently been called in by two local authorities to assist them. He thought they would be making a great mistake if they allowed it to go forth that it was the opinion of the Institute that architects would not be called in to assist in this work.

Mr. Wills remarked that the question of housing came in in this way. The Government considered a very big housing programme necessary and they thought that unless other forms of building were restricted there would not be enough materials or labour to go round. Therefore they said—let us impose restrictions on ordinary building in order that housing may not be checked.

Mr. W. H. White supported the motion, and said that if they wanted to encourage people after the war to put their money into bricks and mortar they must not have a continuance of the present restrictions on building, nor must they discourage private enterprise by putting the work in the hands of a Government department.

Mr. Hubbard remarked that if the Government were to embark on the provision of working-class dwellings, and let them at rents which did not pay, a stop would be put to every scrap of private enterprise.

Mr. Cresswell, while supporting the resolution, said he did not think it went far enough. He would like to see the Institute frame a manifesto for presentation to the Government dealing not only with the question referred to by Mr. Wills, but with many other important matters.

Mr. Niven said he quite agreed that it would be wrong for the Government to put one class of building in front of another at the conclusion of the war. They should let matters assume their normal state as soon as possible.

Mr. Bernard Dicksee said the position was that the Government had found it necessary to impose restrictions on the building trade during the war, and those restrictions had affected architects and builders more than any other trade or profession had been affected. They had submitted to the restrictions without complaint, because they were necessary to help towards winning the war. When the war was won there was absolutely no necessity to continue the restrictions, and the Institute should make that position clear to the Government.

Mr. H. V. Lanchester, speaking against the resolution, said that while he hoped at the proper time the Institute would be able to enforce its views as to what was the proper course to pursue in regard to the various complicated solutions that would have to be found after the war, he strongly deprecated their passing any resolution which would tie their hands in any representations they might make to the Government.

Mr. C. T. Ruthen said that, coming from South Wales, he felt certain that they would never get the trade back in that country unless they housed the workman properly. In his opinion housing after the war must be put before everything, and he was afraid that unless this question was handled very carefully, in some of the working-class areas there would be industrial revolution.

Mr. Wigglesworth remarked that he was afraid there must be some sort of Government control over building after the war, however much they disliked it.

Sir Aston Webb said he was greatly interested in the question raised by Mr. Wills, and he thought it was imperative that the Institute should take a lead in the matter, and let the world know its views thereon. For three and a-half years architects had suffered greatly and willingly on account of the great cost of building, which had practically put a stop to their work; but when the reason for that sacrifice had gone, he did not think they were prepared to continue to suffer in the future in the same way. The point was a very simple one, and it was—were they going to have restrictions on building after the war, the same as they had now? There were rumours that the restrictions to be imposed would be of very serious importance. That made them nervous and irritable, and they wanted to find out the real position; and it was of the first importance that the building trade should know what was in the mind of the Government in reference to that matter as soon as might be. They admitted there must be some control, but they wanted to know how far it was absolutely necessary to carry that out. They wanted to let the Government know that in their opinion to continue the present restrictions would be unjust, not only to architects and builders, but to the public, for there were a large number of commercial firms who were wanting to extend their factories, &c., soon after peace.

Mr. J. S. Gibson remarked that the point they needed to impress upon the Government was that during the war they as architects and their clients had suffered restrictions on buildings of necessity, but that they were determined to have those restrictions removed the moment peace was declared.

Mr. Arthur Keen said it had been assumed that the Government intended to continue the present restrictions on building after the war, in order to provide houses for the working classes. He thought it would be better if they first ascertained definitely whether or not such was the intention of the Government before they passed any resolution on the subject.

Mr. Wills said that when an official of the Ministry of Reconstruction, in conversation at his own office, pre-supposed that a state of control over buildings would be continued after the war, he thought they might take it that it was pretty generally understood that such a restriction was in the mind of the Government. There were many more restrictions in the minds of the Government than the country was generally aware of. He was speaking definitely and with good authority when he told them that recently a small meeting was held at which it was suggested that the Government should consider the advisability of placing not only the building trade but other trades of the country under control after the war. Assuming, however, that his information was not absolutely correct, the Government could say to them that there was no ground for their fears.

The President remarked that he felt somewhat diffident in saying anything on the question because he happened to be engaged in considering the question. He entirely agreed with everything that had been said as to the objections to continuing the present restrictions after the war, but the difficulty he felt was that at the present time nobody knew what was going to be the position in regard to labour and materials at the conclusion of peace. The Government, therefore, to a great extent was working in the dark, and they were trying to provide for contingencies. That being so, he did not think that the Institute ought to commit itself to such a definite resolution. Speaking as an ordinary member and not as President, he would have felt more comfortable if the resolution were to read that they should take steps to represent to the Government that the present restrictions on building should be entirely removed at the earliest possible moment after the conclusion of peace. He assumed that if the resolution was carried, Mr. Wills and his supporters meant that it should go to the Conference which was now sitting on the subject.

Mr. Woodward said he thought it should be made perfectly clear that although they agreed that the resolution should go to the Conference referred to by the President, the idea was that ultimately it should go to the Government as a resolution of the Institute.

Mr. A. Crow proposed the resolution in the form suggested by the President as an amendment. This was seconded by Professor Adshead, but on being put to the vote was lost by 20 to 8. The President then put Mr. Wills' resolution in the following form:—

> That in view of the important interests involved, this Institute should, in conjunction with other bodies, take steps to represent to the Government the serious objections to the continuance after the declaration of peace of the present war restrictions on building;

and it was carried by 25 votes to 2.

GENERAL NEWS.

Deceased Architect's Estate.

The will of the late Mr. Hippolyte Jean Blanc, Academician, Royal Scottish Academy of Painting, Sculpture and Architecture, J.P. for Edinburgh, has just been proved. He left personal estate of the value of £12,061.

St. Augustine, Rimini.

It is stated in the *Times* that in the ancient Church of St. Augustine, at Rimini, the discovery has been made of some important frescoes of the 14th century of the school of Giotto. One of these contains a new and very beautiful portrait of Dante.

School of Civic Design, Manchester.

The architectural department of Manchester University, which is under the joint control of the University, the Manchester Education Committee, and the Manchester Society of Architects, is endeavouring to stimulate public interest in the subject of town planning, and with this object a School of Civic Design is being set up at the University.

The Society of Architects.

Major T. Stewart Inglis, R.F.A., a member of the Council of the Society of Architects, has been appointed a Companion of the Distinguished Service Order, as a reward for distinguished service in the field.

Mr. T. Stanley Beach, a student of the Society and a lieutenant in the Royal Engineers, who was recently wounded, has been mentioned in Sir Douglas Haig's dispatch.

British Industries Fairs, 1918.

As it is possible that the new accommodation for the British Industries Fair (Glasgow), 1918, may not be entirely completed by February 25, and as it is of great importance that the British Industries Fairs in London and Glasgow should be held simultaneously, the Board of Trade have decided to postpone the opening of both fairs for two weeks. Accordingly, the period for which the British Industries Fairs in London and Glasgow will be open will be March 11 to March 22.

Originality in Art.

Colonel Sir Thomas Holdich, speaking at the 29th annual meeting of the Royal Drawing Society at the Guildhall (at which Mr. T. R. Ablett, director of the society, read a paper on "Individuality in Art") said that originality was even more important than individuality. He remembered a boy who, in sketching an organ-grinder with his organ, tried to depict the notes coming from the instrument. That boy was subsequently trained in a school of the period with such effect that his originality was destroyed.

"A Thousand and One Uses for Gas."

The third of the special "Industrial Efficiency Numbers" of *A Thousand and One Uses for Gas* (published monthly by the British Commercial Gas Association, of 47, Victoria-street, Westminster, S.W. 1) deals largely with the canteen as a factor in increasing output and maintaining efficiency, and gives ample evidence in support of the statement of the Health of Munition Workers' Committee that for such canteens, "Where gas in sufficient quantity is available, gas cooking is usually preferred on account of cleanliness, efficiency, and saving of labour." A very important section of this issue discusses the value of the by-products of gas manufacture from the national point of view, and deplores the fact that less than one-fifth of the coal extracted from our by no means inexhaustible mines is treated for the recovery of these substances precious in war and peace alike.

Australian Town Planning Conference and Exhibition.

Mr. G. Culpin, Garden Cities and Town Planning Association, London, has received the following letter:—

"SIR,—The first Australian Town Planning Conference and Exhibition, comprising some 290 delegates, presided over by the Hon. J. D. Fitzgerald, M.L.C. (Minister for Local Government and Public Health N.S.W.), sitting in session in Adelaide from October 17th–24th, 1917, and representing an influential gathering of representatives of Government departments, local authorities, professional bodies and others assembled from the States of the Commonwealth of Australia, unanimously passed a resolution as follows:—

"'That the Australian Town Planning Conference and Exhibition place on record its thanks to the Garden Cities and Town Planning Association of Great Britain for its splendid achievement in arranging for the Australasian Town Planning Tour, 1914–15.'

"This resolution may be taken as voicing the feelings and appreciation of one of the most influential gatherings associated with town and city government held in Australia, some of the delegates to which travelled over 3,000 miles.

"(Signed) CHARLES C. READE,
Hon. Organising Director.
Government Town Planner."

The Government and Museums.

At a special meeting of the Council of the British Academy, the following resolution was passed:—

"The British Academy desires to represent to His Majesty's Government the irreparable injury that would be done to the interests of learning and humane studies by any serious damage to the priceless collections in the British Museum, and the slur which would be cast on the good name of the country by action which will be taken as implying indifference to those collections and to the civilization they represent. To remove any considerable portion of the collections, except with the utmost care and the expenditure of many months of skilled labour, is impossible without the certainty of injury; and to house a large combatant department in the midst of the collections themselves involves a great increase in the risk of accident and fire, quite apart from the danger of air attack from hostile aircraft, which would obviously be much increased. The Academy earnestly appeals to His Majesty's Government not to sanction action which would discredit this country in the eyes of the civilized world."

Mr. C. E. Keyser, President of the British Archæological Association, at the last monthly meeting of the Association, said that, allowing for the difficulties which there might be in finding premises for all the numerous Government Departments which the war had rendered necessary in London, he thought that it ought not to have been necessary to go to the British Museum and place our splendid national collection in danger. A terrible risk would be run if the collection had to be moved and it would take years for it to be put together again. A resolution was adopted protesting against the proposed employment of any of the buildings occupied by the British Museum for any other purpose than that to which they had been devoted.

The Palace of La Granja: The Chapel. (*See* page 38.)

Leading Contents.

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ILLUSTRATIONS.

Chelsea Parish Church.

WE complete the series of illustrations we recently gave of the Parish Church of Chelsea, which is one of the most interesting buildings in or near London and forms a treasure house for the student of historic style.

The Painter-Stainers' Company.

Four of our inset illustrations are given up to views of the Painter-Stainers' Hall, and an article and further illustrations will be found on p. 39,

The Palace of La Granja.

A SERIOUS fire has occurred in the Royal Palace of La Granja, which is perhaps the most beautiful of the many beautiful palaces of the King of Spain. It deserves indeed to be so described not merely for the building itself, nor for its contents—which are said to have cost King Philip V when he built and adorned it the sum of at least 45,000,000 pesetas—but for the extraordinary beauty of its situation.

The Palace of San Ildefonso, better known as La Granja (" the grange " or farmhouse) is about seven miles by road from Segovia, and surrounded by lovely woods which extend for miles, with abundance of water which fills its twenty-six fountains. Situated in the midst of the great arid Castilian plain, which extends from Burgos in the north as far as Toledo, this was really an oasis of fresh green beauty in which King Philip built his pleasure-house, taking their cloister from the Segovian monks of El Perral. The style of the building—a structure rectangular in form, and of two stories—is essentially French, influenced by the splendours of Versailles, with numerous windows facing on the gardens. On the ground floor is the famous Gallery of Statues, on the floor above the Official Gallery (*Galeria Oficial*), used for receptions and councils of Ministers. The style of the later French monarchy, of Louis XIV, the Regency, and Louis XV appears in the furniture of these rooms, and even the Empire is represented, especially in the upper floor.

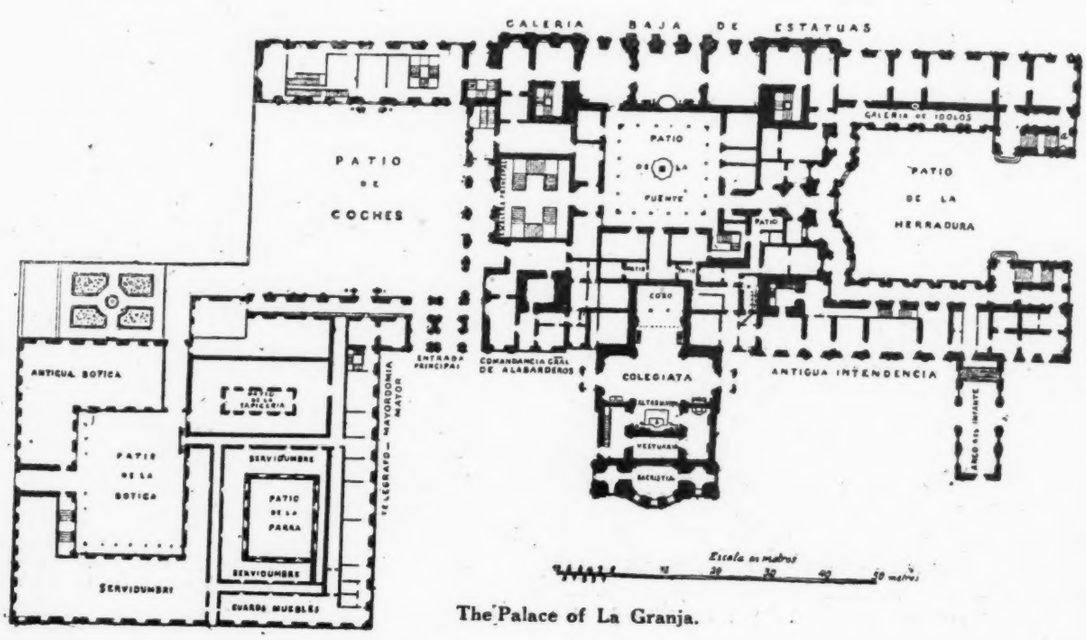
For this palace has witnessed many scenes of import to Spanish history since Philip V secluded himself here to indulge his feeling of religious melancholy, of the vanity of earthly grandeur. Here Charles III planned vainly to wrest Gibraltar from England; here the notorious Godoy, Prince of the Peace, signed that weak treaty which placed Spain at Napoleon's mercy; here King Ferdinand VII took the fatal step, under Queen Cristina's influence, which led to the Carlist division.

The collection of pictures—many of which were obtained from Italy, about 1735, by Queen Isabella Farnese, through the painter Pittoni—was a very fine one, but the best of them went to the Prado Museum; many of the statues on the lower floor went there also in 1829, but we still found some most interesting antiques remaining when we visited this palace.

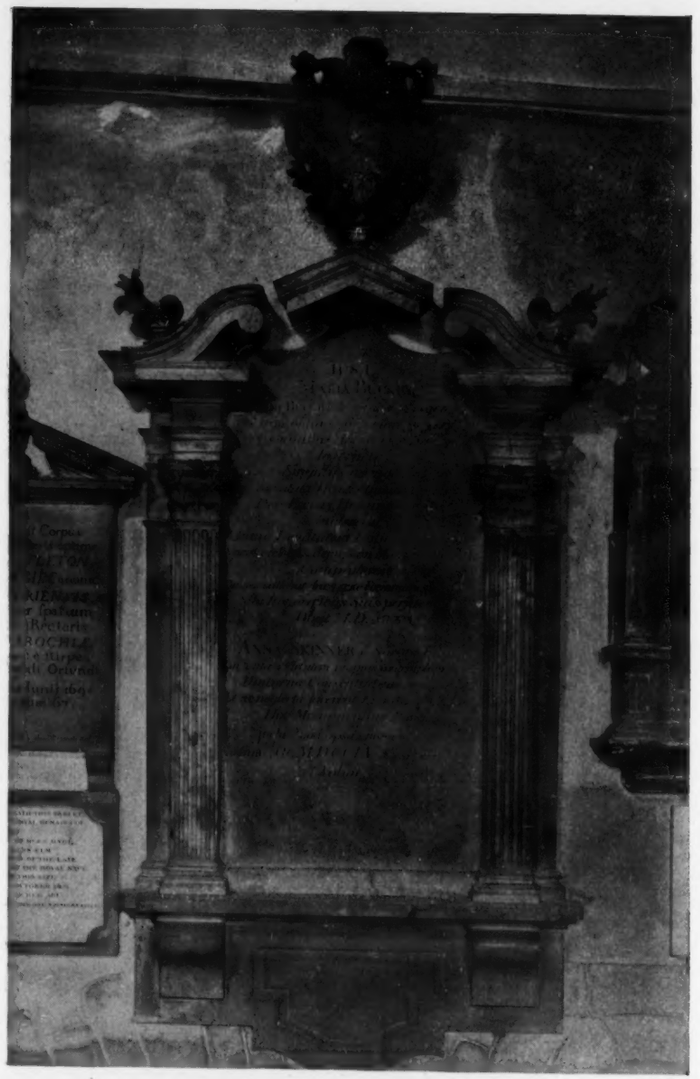
But the great beauty of La Granja is, after all, its gardens. Their somewhat precise design, with box avenues, mazes, marble vases and statues and flower beds, contrasts with the wild beauty of the woods beyond, which form a wonderful background to the brilliant hues of the flowers and the gleaming waters of the many fountains.

It is reported that the tapestries and many of the art treasures—especially those with the furniture in the throne room on the upper floor—have been saved from the fire of last week. A regiment of soldiers from Valladolid arrived in time to assist in combating the flames; but the firemen sent out from Madrid were not able to reach La Granja owing to the present snowed-up condition of the Castilian railways. Promptitude and punctuality are never striking features of the Spanish railway system, but on this occasion the delay seems to have been excusable.

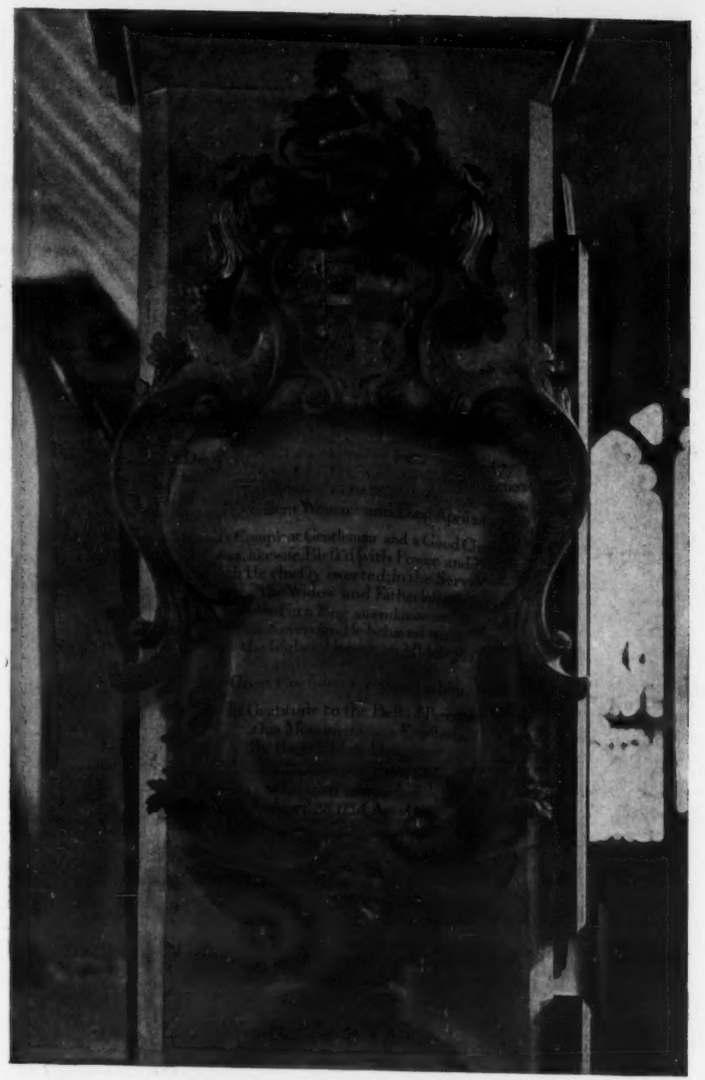
The Palace of La Granja.



The Palace of La Granja.



Buckby Monument, North Wall of Chancel.



Powell Monument, between Chancel and St. Lawrence's Chapel.

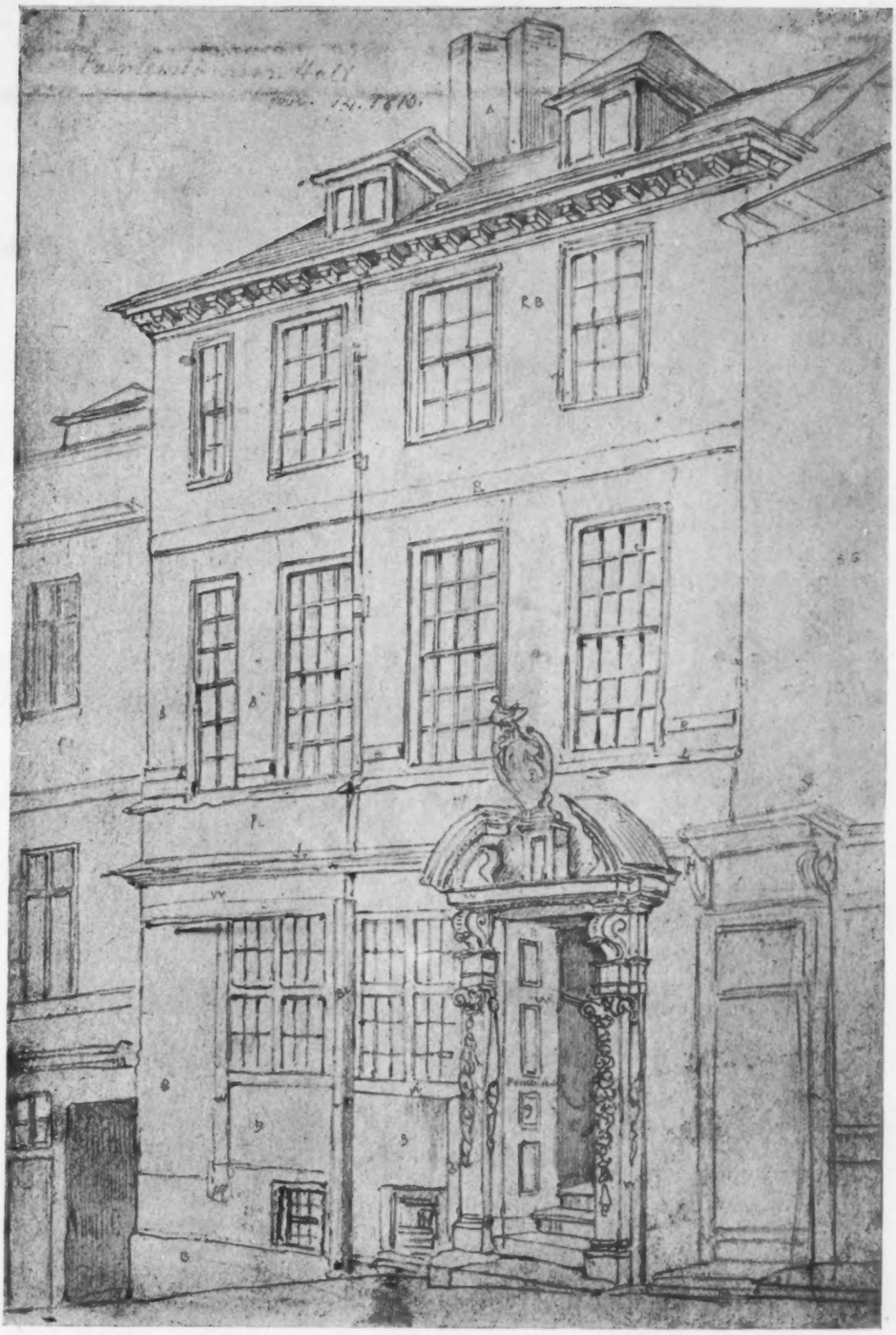
Buckby Monument, North Wall of Chancel.

Powell Monument, between Chancel and St. Lawrence's Chapel.

Colvill Monument, North Wall of St. Lawrence's Chapel.

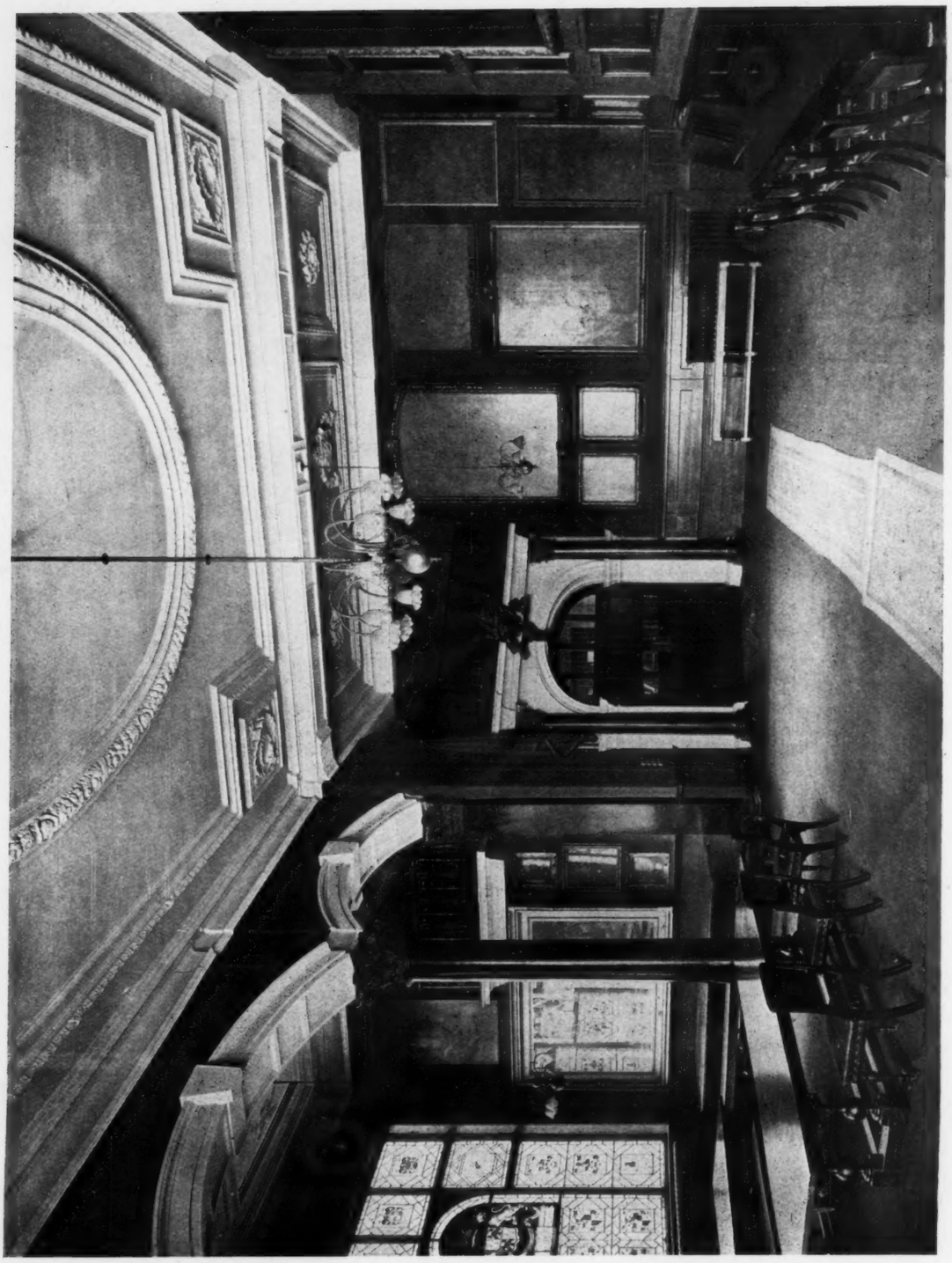
Chained Books in South-West Window.

CHELSEA OLD CHURCH.

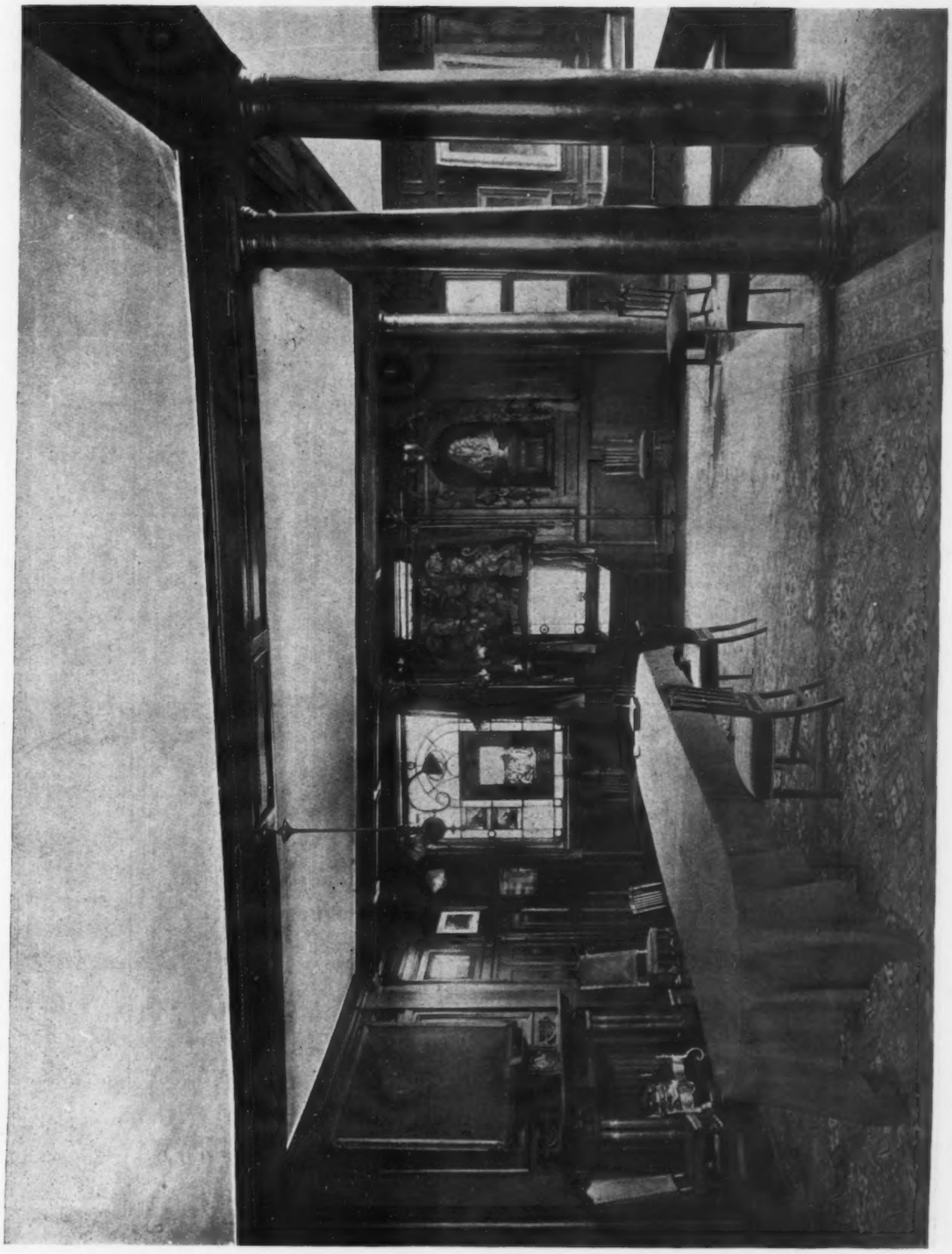


From a Drawing in the Crace Collection.

PAINTER STAINERS' HALL IN 1810.



PAINTER STAINERS' HALL: THE LIVERY HALL.



PAINTER STAINERS' HALL: THE COURT ROOM

PAINTER STAINERS' HALL: THE STAIRCASE.

. The . .

City Companies and Their Halls.

No. 27.

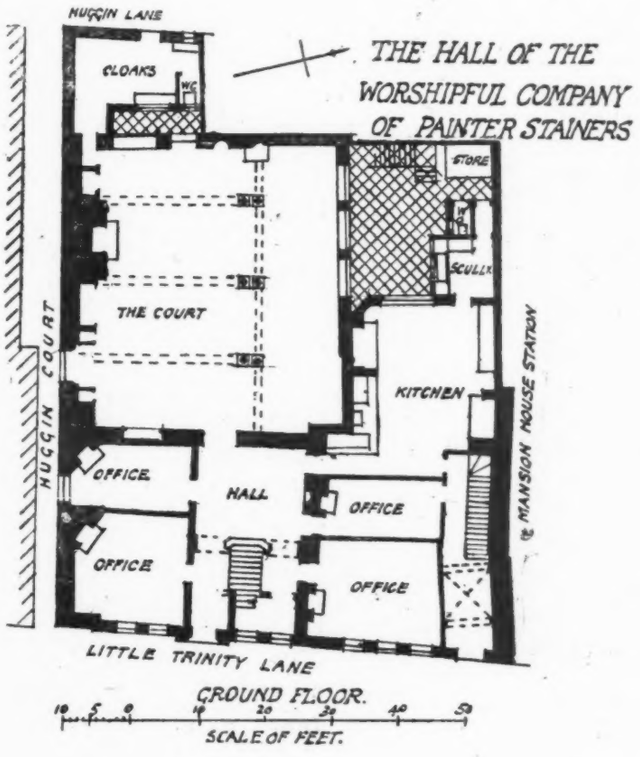
The Painter-Stainers' Company.

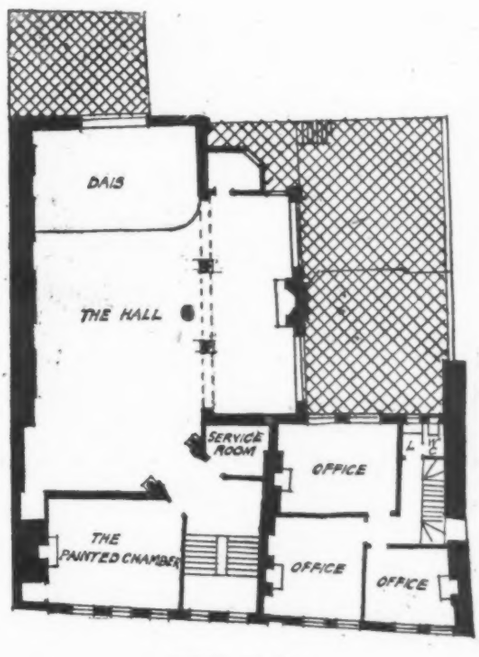
THE Painter-Stainers' Company represents both an art and a craft and in earlier times, when decoration hardly existed except as an adjunct of building, and when the easel picture was unknown, the sharp differentiation which is now in use did not exist. Among the earliest references to the art in the City records is one of the year 1284, when Nicholas Bacun, painter, acknowledged himself bound to Hugh Motun in the sum of twenty shillings for cinople, vermilun, canevas, vernis and verdigris, half of the amount to be paid at the Feast of St. Bartholomew, and the remainder at the Feast of St. Michael, proving that varnish was then used for painting. In Riley's Memorial, a quotation is made from the Liber Horn, temp. Edward II, as to "Rules as to painting old and new saddles: It is provided that no one put any but good and pure colours upon gold and silver; that is to say, good cynople, good green, good vermilion, or other colours tempered with oil, and not brasil (a coarse red) or indigo or Boldas or any bad colour." The Painters, Joiners, and Loriners had difficulties with the Sadlers over questions affecting the four crafts, which were settled by agreement in 1327, thus proving them to have been organized bodies of influence and standing at that time.

In 1467, the Court of Aldermen sanctioned bye-laws for the craft, authorising them to elect two wardens with at least six others to assist them, and giving them the right to assemble in the City. Any member refusing to appear when summoned was to forfeit one pound of wax, half of which was to be used for lighting the Guildhall chapel, and half to the light of St. Luke. The materials to be used in church work and for sign painting are specified. Two years later they contributed 20 men to the City watch, the Stainers being represented by fourteen.

Among the guilds stated to be present at the funeral of Henry VII, the Stainers are not mentioned, and in 1501 the first municipal references to the Painter-Stainers occur, the amalgamation of the two bodies resulting from a petition which was presented to the Mayor and Aldermen on the 19th October, 1501.

At that time a painting on wood was described as "a table" (French *tableau*), and one on canvas as a stained cloth. The Steynours were a body of coeval antiquity with the Peyntours, but do not appear to have ever received a charter of incorporation. The two companies stated that, whereas the two crafts were separate and communications had passed between them they prayed that "for the reformation of the two crafts, and to secure perpetual amity, concord, and unity between them . . .





it may be authorised and established from this time forward that the said two crafts of Peyntours and Steynours may be knyt, joyned and unyd to giders as one body, one craft and one fellowship . . . . to be reputed, taken and called by the name of Peynter-Steynours."

The agreement was one between two bodies of almost equal standing, as the Master and Wardens were to be alternately chosen from each craft in turn, and the united craft was to have one hall, one box, one barge and one light and in all assemblies go together as one. The petition was stated by the Lord Mayor and Aldermen as being "well understood," and its contents "good and honest and agreeable to reason," nor is there any record of any disagreement subsequently arising between the conjoined crafts.

Arms were granted by Thomas Holme Clarencieux in 1486 to the Painters' Company, as follows:—

"The Feld Asure a Chevron betwene thre ffenyx in his propre nature and Coloure set with a wrethe gold and gowles the mantell asure furred with ermyn"

The arms of the united companies were confirmed by Thomas Benolt Clarencieux in 1530, and are as follows:—

"Quarterly first and fourth azure three escutcheons argent, second and third azure a chevron between three phœnix heads erased or. Crest a phœnix close or, in flames proper. Supporters: Two leopards argent spottes spotted with various colours ducally crowned collared and chained or. Motto Amor et Obedientia."

A petition was presented to Queen Elizabeth in 1575, stating that the competition of persons who had not been apprenticed to the craft, but whose productions found purchasers, occasioned the decay of the craft and of its proper exponents, and in 1581 a charter was granted to "The Master, Wardens and Commonalty of the Freemen of the Art and Mistery of Painters, commonly called Painter Stainers, within the City of London and the suburbs and liberties thereof." This charter, which has a portrait of the Queen as an initial ornament, is in the Company's possession. A supplementary deed, entitled "The Book of Ordynnances of the Peynter-Steyners," was signed by the two Lords Justices with their arms, and to this Lord Burleigh's signature is affixed.

The by-laws made it clear that the powers sought by the Company were very necessary for the welfare of the art, which had suffered, not only by the want of skill of the inexperienced in the mechanical and craft side of the art, but also by the incompetence of those who painted portraits and landscapes. Stow stated that persons who had not learned the business undertook to paint portraits of the Queen and nobility, which seemed fair at first sight, but would not bear examination, a criticism which applied both to the skill of the painters and the quality of the materials they used.

The scope of the craft, including as it did the decoration of dwellings and every branch of the artist's profession, was an unusually wide one, the Company forming for a long term of years the highest authority on art in the country, and including within its ranks the most prominent painters, exercising, in addition to the rights of selection possessed by the Royal Academy subsequently, the powers of control, search and punishment which rendered the mediaeval craft guilds so important a feature in the life of our forefathers. The by-laws ordain "that no person or persons whatsoever, Englishman or stranger, denizen or not denizen, freeman or foreigner, shall at any time hereafter lawfully scrape, lay or work anything to be sold with varnish upon any wood, stone, paper, parchment or vellum that is grounded first with any kind of commixture appertaining to the art, science or mistery of painting or staining, or with or upon any kind of colour or colours, oil, size, gum, glue, or any such like thing commonly used in the art or mistery" without being admitted to the freedom of the Company.

The necessity of stringent regulation was necessarily far greater in times when every painter had to select and mix his colours, and when the durability of his work depended on an intimate knowledge of the materials he used. It will be remembered that Turner was very ignorant or careless in this particular, which has materially affected the permanent value of many of his pictures.

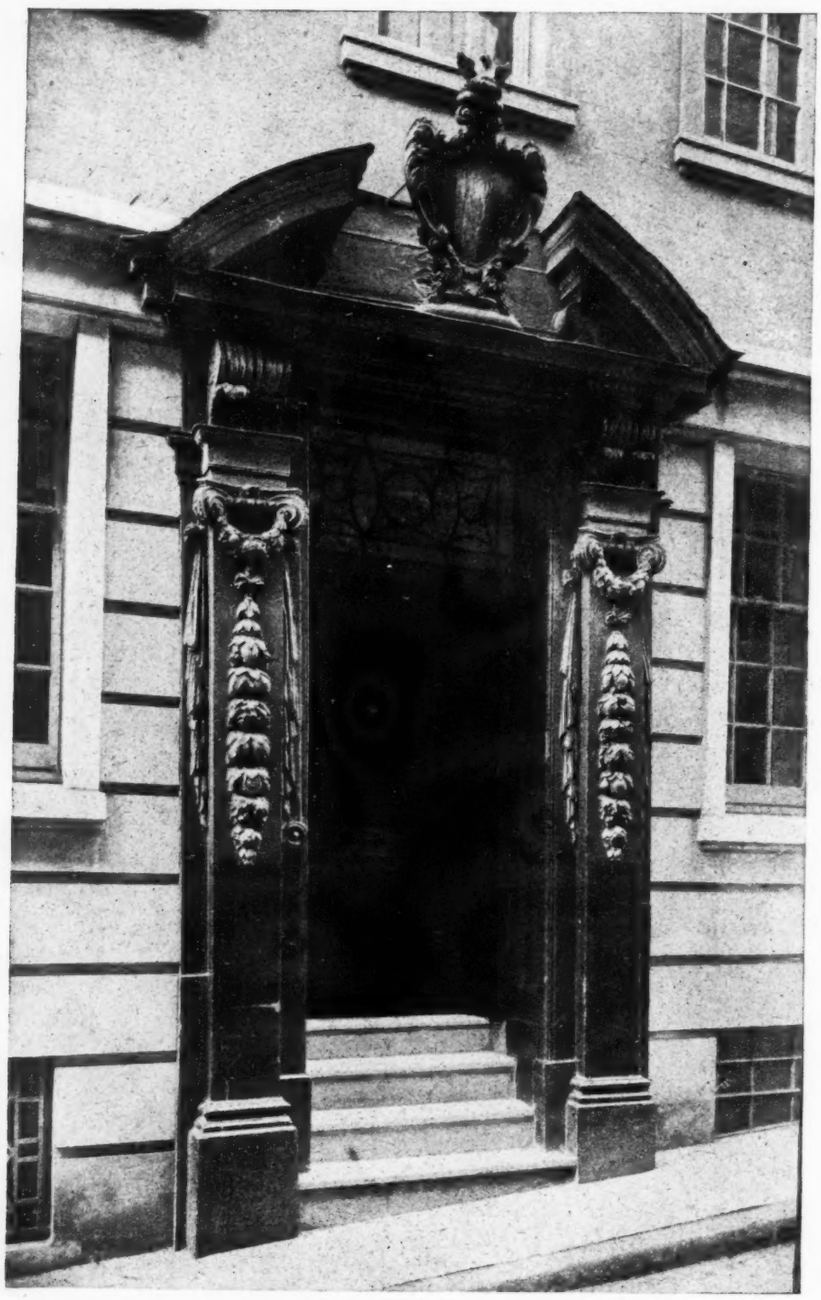
In the seventh provision it is stated—

"*Item* it is ordained and constituted forasmuch as the true workmanship and knowledge of the said art and mistery of painting and staining cannot be obtained, or the exercise thereof be had, without many years and great diligence, and that notwithstanding, many unskilful and unable persons in that science do intrude, usurp, and unlawfully presume to use, exercise and occupy the same art and mistery, and having no sufficient skill do enterprise to portrait, counterfeit shadow and paint the pictures, proportions, ensigns, and arms and divers other great feats of workmanship, as well of the kings and queens predecessors and ancestors of the Queen's most excellent Majesty, as of her Highness, as also of divers and many noble honourable and worshipful personages and persons . . . to the great slander and reproach of the whole Company aforesaid. . . . That therefore no person or persons before rehearsed within the said Cities, suburbs or four mile compass, shall or lawfully may occupy, use or exercise the said art science or mistery . . . . unless he or they be free of the said art, or have been apprentice thereunto by the space of seven years at the least or more namely with a painter-stainer, or hath heretofore occupied the said science according to the statute of the fifth year of the Queen's Majesty's reign."

The records of the searches carried out by the Company make it clear that they rigorously exercised their powers to promote a high standard of achievement.

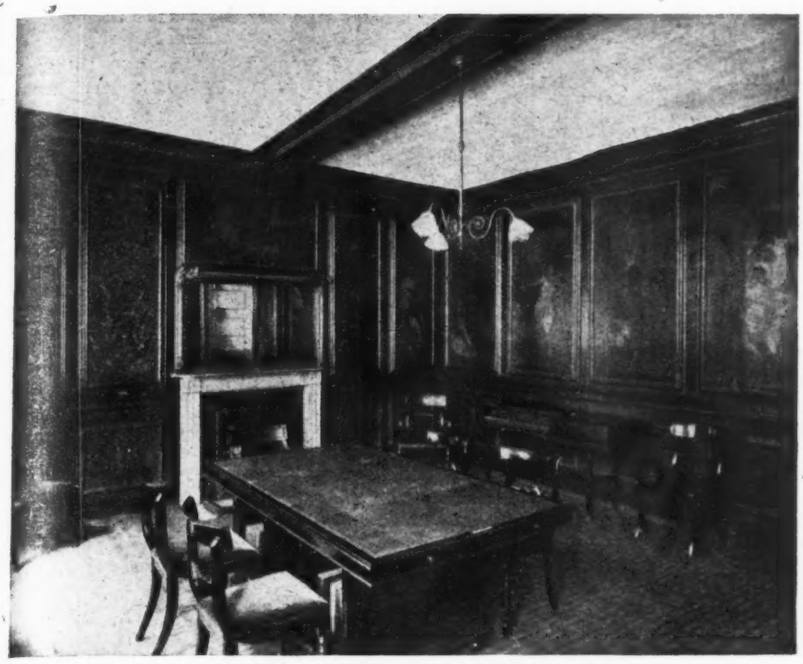
In 1623 one John Pryce was presented to the Master and Wardens by the searchers, "about a syne, that, as he saith, his man did contrary to his appointment and that it is not done reasonable." He was to take it down and have it "mended" before the next quarterly day or else pay a fine.

In 1632 a coach was found painted by a Mr. Barrows, which was "very defective," and at



[*Photo. Bedford Lemere.*]

Painter-Stainers' Hall: The Doorway.



Painter-Stainers' Hall : The Painted Chamber.

the same place "a syne of the unicorn—very ill done—we cannot yet know by whom."

One Sherman, a bookseller, by the Town Ditch, who is not a painter, maketh defective work, which is commonly sold, at many booksellers' shops about the City.

In 1673 a minute records that the "painter of Joseph and Pottifer's wife and the Foure Elements be fined £3 6s. 8d. for such bad work."

The Company were also appealed to to decide the value of artistic work. In 1631 the Lord Chamberlain requested them to make a true valuation of work done in "painting, trymming and gilding" the barges of the King and Queen, and the Company assessed the amounts which should be paid.

The recognition given to the Company as representing painting in all its branches must have been of enormous value to the cause of art as a whole, since it prevented the relegation of lesser decorative work to unfit and untrained hands—a modern practice which has tended to the vulgarisation of forms of art, a higher standard in which would have great educative influence among the people, which is now lacking. Nor could such regulation be considered, like many of the restrictions of the other crafts, as tending to a monopoly injurious to trading interests; but the powers possessed by the Painter-Stainers, though never formally repealed, are not now exercised.

The Patron Saint of the craft is St. Luke, to whom tradition attributes some skill in painting; and from the fact that the fines mentioned in the by laws of 1467 went towards the maintenance of a light in the Guildhall Chapel, it has been assumed that the Painters first settled in that locality, but the established records are all connected with the site which their Hall now occupies in Little Trinity-lane.

The old Hall before the Fire was originally the private residence of Sir John Browne, Sergeant-Painter to Henry VIII, but very little information is known about it. It was used by the Committee for the Relief of the Sick and Wounded in the War between the years 1664-5, and was destroyed in the Fire of 1666. Two years later, Mr. Luck, a bricklayer, and Mr. Bell, a carpenter, attended before a committee with tenders for the work of their respective trades. The Company's plate was mortgaged to raise further funds for building, which was completed in 1669. Like many of the other Halls, it was let for other purposes—a congregation of German Protestants paying £24 a year for its use twice on Sundays and on every holiday. It has been recently enlarged and re-decorated by the Surveyor, Mr. Searles-Wood, who has carefully preserved its historic character. The entrance hall and staircase are pleasant features, and the large court room on the ground floor with its columns forms an admirable meeting room. The hall over, forms a main room, with an annexe divided off by columns, and is dignified and simple in effect. The unique Painted chamber on the first floor and some offices complete the accommodation provided in the building, which possesses a quiet, domestic character which is very pleasing and which has been carefully preserved with quiet good taste—the building being devoid of the incongruous adjuncts and later additions which have spoiled so much of the effect of work of the past. The only feature externally is the pleasant wooden doorway surmounted by a broken pediment in the centre of which is placed an escutcheon with the Company's arms.

The Company has for many years numbered among its ranks notable artists, who have always considered its membership as an honour and distinction, although it no longer exercises its former functions, which have been so valuable in the past. The Painter Stainers have been pioneers in the cause of modern technical education, and as long ago as 1858 held an exhibition of works in decorative art; for the best work submitted, medals and other rewards, including the freedom of the Company, were given. Travelling scholarships to Italy are also awarded; and in conjunction with the Carpenters', Joiners', Masons', Plasterers' and Plumbers' Companies, they take part in affording craft educational facilities in the Trades Training Schools at Great Titchfield-street.

The Painter-Stainers also administer some important charities, the chief of which is that founded under the will of John Stock, a liveryman of the Company, in 1781. The Company were made his residuary legatees, and now hold some £60,000 in Consols in trust, the interest of which provides pensions for aged blind people, decayed liverymen, poor painters and poor curates. Other bequests for charities have been given by Mrs. Jane Shank, Mrs. Dorothy Smith, Mrs. Mary Grainger, Mrs. Francis Yeates, and Miss A. R. Syddall; and in all some 200 persons are assisted. William Davidson Barnett, a bachelor and a member of the Company, who died in 1906, left the bulk of his property to the Company; but owing to some defects in the will, the moneys were diverted from the Company, but by a friendly settlement the Painter-Stainers have considerably benefited, and for some years the Company have dined at the Hall on the testator's birthday, in fulfilment of a wish expressed in his will. Such a bequest made within recent years is a proof that the Company inspires the affection and fraternal feeling among its members which have contributed so largely to the power and influence of the guilds during centuries of English history. The Company possess an unusually valuable collection of pictures, many of them of great value, which give additional interest to one of the most interesting of the guilds of the ancient city of London; and though they no longer exercise the compulsory powers granted them by charters, they are yet in a position to exercise a very useful and beneficent influence in the cause of the decorative arts.

*** The following articles on the City Companies have already appeared in our pages:—the Mercers', March 31, 1916; the Grocers', April 28; the Drapers', May 12; the Goldsmiths', June 9; the Skinners', July 14; the Merchant Taylors', August 4; the Haberdashers', September 1; the Salters', October 6; the Ironmongers', October 27; the Vintners', December 8; the Clothworkers', December 22; the Barbers', January 26, 1917; the Dyers', Feb. 16; the Brewers', February 23; the Leathersellers', March 30; the Pewterers', April 20; the Cutlers', June 1; the Bakers', June 15; the Wax Chandlers', June 29; the Tallow Chandlers', August 10; the Butchers', September 7; the Armourers' and Brasiers', September 21; the Girdlers', October 12; the Saddlers', November 9; the Apothecaries', December 7; the Carpenters will be given in February; and the Fishmongers' at a later date.

MEETINGS.

FRIDAY, *January* 11.

Auctioneers and Estate Agents' Institute.—Presidential Address by Mr. W. H. Wells. 3 p.m.

Glasgow Royal Technical College.—Mr. Colin Sinclair, M.A., on "Celtic Sculptured Monuments in Scotland." 8 p.m.

MONDAY, *January* 14.

Incorporated Clerks of Works Association (at Carpenter's Hall, London Wall), at 6.45 p.m.—Mr W H. Bray on "Electrical Installations." 7.45 p.m.

Surveyors' Institution.—Ordinary meeting. 5 p.m.

TUESDAY, *January* 15.

Illuminating Engineering Society (at the Royal Society of Arts).—Mr. L. Gaster on "Ten Years of Illuminating Engineering: its Lessons and Future Prospects." 5 p.m.

Incorporated Institute of British Decorators.—Mr. Ivor Beaumont on "Ravenna: Its Architecture and Mosaics." 6.30 p.m.

WAR HONOURS.

The following appointments have been made for services in connection with the war:—

As Knight Commander (K.B.E.).

ARTHUR JOHN DORMAN, Chairman of Messrs. Dorman, Long & Co., of Middlesbrough.

As Commanders (C.B.E.).

MISS LAWRENCE ALMA-TADEMA, Joint Founder of the Polish Relief Fund for Great Britain.

FRANK BAINES, M.V.O., Principal Architect, H.M. Office of Works.

HARRY BELL MEASURES, M.V.O., Director of Barrack Construction, War Office.

HOWARD ADDISON MCFERRAN, Chief Engineer, H.M. Office of Works.

ALBERT JOHN PITCHER, Architect, First Class, H.M. Office of Works.

As Members (M.B.E.).

PROFESSOR PERCY GROOM, D.Sc., Head of Section of Technical Dept. of Air Board.

JAMES HARDMAN, Asst. Architect, War Office.

ARTHUR WILLIAM HEASMAN, Asst. Architect, 2nd Cl., Office of Works.

FREDERICK ALLEN LLEWELLYN, Asst. Architect, 2nd Cl., Office of Works.

JOHN DEEBLE MICHELL, Chief Architectural Adviser, War Office.

JOHN FERGUSON MILNE, Asst. Architect, 2nd Cl., Office of Works.

OBITUARY.

Mr. Frederick Chancellor.

The death occurred on the 3rd inst. at Bellefield, Chelmsford, of Mr. Frederick Chancellor, J.P., F.R.I.B.A., as the result of a serious illness. Deceased was born on April 27th, 1825, and was the son of the late Mr. John Chancellor. He was educated at a private school at Kingston-on-Thames, and afterwards at the London University College, subsequently taking up the profession of architect and surveyor. In 1864 he was elected as Associate of the Royal Institute of British Architects, and in 1870 a Fellow. In 1854 he secured a seat on the Local Board of Health, the then governing body of Chelmsford, and was made chairman of that body in 1881, holding that position until 1888, when the Board ceased to exist, Chelmsford having obtained its charter of incorporation. He was made the first Mayor, and subsequently he held that office in 1894–5, 1895–6, 1896–7, 1901–2, 1905–6, and 1906–7, and it was not until November last that he retired from the municipality. The honorary freedom of the borough was conferred upon him, and a scheme is now on foot to further recognise his services by establishing scholarships, tenable either at the Chelmsford Grammar School or the County High School for Girls, Chelmsford, to be known as the Frederic Chancellor Scholarships. Besides serving on the Local Education Committee and as one of the governors of the two schools mentioned above, deceased had been a member of the Essex Education Committee, and he also served on the Essex County Council. He signed the roll of Chelmsford Volunteers in 1859 and retired in 1892 with the rank of Lieutenant-Colonel. Archæology was a subject of great interest to him, and he was one of the founders of the Essex Achaeological Society in 1852, and was elected President in 1908. He was the author of numerous articles and papers on Essex churches and ancient buildings. From 1871 to 1892 he was the diocesan surveyor of St. Albans and honorary diocesan architect in 1859. In 1879 he was elected Master of the Coachmakers and Coach and Harness-Makers' Company of London.

Sir William Lindley.

Sir William Heerlein Lindley, who died at Putney recently fairly deserves (says the *Times*) to be called an international engineer. His father, Walter Lindley, left his impress as an engineer on many towns in Germany and other parts of the Continent. In particular, he stood to Hamburg in something like the same relation as Haussmann to Paris; and after taking a leading part in countering the great fire which took place in that city in 1842, he was entrusted with the construction of its sewerage, water and gas works, and with extensions to its port. Later, he was responsible for various engineering works in many other Continental cities. The son, who was born in 1853 and was educated at schools in Blackheath, followed in his father's footsteps. He began his professional career in 1870 by acting as resident engineer for his father on the waterworks at Budapest; and in 1873 he became engineer to the city of Frankfurt-on-Main, where for more than twenty years he was in charge of all branches of municipal engineering and of the port and the regulation of the Main. He was further concerned with electricity supply works at Elberfeld; with sewerage works at Elberfeld, Homburg, Mannheim, Wurzburg, Prague and Cracow; and with water supply at Warsaw, Bukarest, Cracow and Baku. In 1912, he was appointed engineer-in-chief for the design and execution of new water supply and drainage works at Petrograd, at an estimated cost of £10,000,000. But there were difficulties in the way of carrying out this scheme. Six months ago it was announced that he was to receive the freedom of the city of Baku in recognition of his services in designing and constructing the new water supply works, by which water is brought from a point in the Caucasus, about 112 miles away. The regard in which he was held in German engineering circles is shown by the fact that he acted as President of the Engineering Standards Commission of the German Gas and Waterworks Engineers, and also of the commission on stray electric currents from tramways. He became a member of the Institution of Civil Engineers in 1878, and received a knighthood in 1911 on the ground of the services he had rendered to the Royal Commission on Canals and Waterways, for which he prepared elaborate reports on the waterways of France, Belgium and Germany, with notes on those of Holland.

CORRESPONDENCE.

Government Restriction.

SIR,—At a meeting of the R.I.B.A. on Monday last, Mr. Herbert W. Wills proposed a resolution, concurring with the subject of my letter, published in the *Builder* of November 23. Officialism and Government restriction of building after the war is one of the most serious problems facing architects. The admirable leader in the *Builder* of December 14 is worthy of the most serious consideration by every member of the profession.

After nearly three years' investigation of Government works and negotiations with members of the Government and Ministry of Munitions, I realise to the full the perils facing us, unless we energetically take immediate action to combat official control.

I suggest that every allied society should forward the Secretary of the R.I.B.A., a letter to support Mr. Wills' resolution and insist that we, as a body, shall have our rights considered by the authorities, before it is too late.

I am forwarding a copy of this letter to the Secretary of each allied society.

WILLIAM R. GLEAVE.

Nottingham.

The Father of Concrete.

SIR,—Mr. Joseph Tall, in a letter which appeared in the *Builder* of December 21—a continuation of some correspondence that originated with Mr. Kerner Greenwood—asks where and when I erected my first concrete buildings, whom they were for, and whose patent appliances I used for the walls.

I see no object in this inquiry, but if any satisfaction to Mr. Tall I reply that the buildings comprised a number of cottages, a large block of farm buildings, and many other things in the agricultural village of Steeple Langford—about eight miles from Salisbury—for the owner of the property (the late Lord Ashburton), and the wall appliances used were Mr. Charles Drake's patent. The buildings were commenced early in 1869, and I am informed that they are in as good condition now as when erected, so far as the walls are concerned, and that no outlay has been incurred in repairs or renewals at any time. The walls were reinforced with iron hoop, and, as a result, no temperature cracks developed.

Mr. Tall's patent is dated 1865, and was for appliances for forming monolithic concrete walls. Mr. Tall published a pamphlet in connection with his appliances about 1869, which contains several errors. It is stated therein that the amount of materials required for fifteen cubic yards of finished walling was seven yards of the aggregate, seven yards of packing stones, and one yard of cement—whereas cement does not increase the measurement at all; and that sixteen bushels make a cubic yard instead of twenty-one. He did not allow for any shrinkage of the materials, whereas the loss is from nine to twelve per cent.

An equal amount of packing stone and concrete in thin cottage walls is unreasonable—one-third or one-half of packing is as much as should be used, and even then great care should be exercised in its use.

With Mr. Tall's figures a cubic yard of concrete worked out at about 6s. 6d., which, if doubled, or trebled, even at the present time, would make it a valuable asset in connection with the new housing schemes.

THOMAS POTTER.

BOOKS.

Practical Mathematics for Technical Students. By EDWARD L. BALES and FREDERICK CHARLESWORTH. (B. T. Batsford, Ltd. 5s. net.)

This is an excellent manual of practical mathematics for technical students and artisans who, starting with the knowledge which is obtained at any elementary school, can pursue the study of mathematics up to the point at which it becomes the necessary and indispensable tool of the engineer and scientific worker. The preface does not claim too much when it states that "the book will be found to contain all the mathematics that the average technical student or practical man requires to enable him to follow intelligently technical or scientific subjects which he may have to study in connection with his trade or profession." The work is intended to cover a two or three years' course according to the capacity of the student. The practical application of the principles explained is a feature of the work which makes it more interesting and separates it from the purely mathematical works which are commonly in use in schools and colleges. The first section of the work is taken up with a short, well-written introduction to algebra—the shorthand method by which calculation is so infinitely simplified—and the use of squared paper graphs and other technical matters is well and clearly explained, while the hard and fast divisions between arithmetic, algebra and geometry are eliminated in favour of a system which demonstrates that they are joint parts of mathematical science which should be used by the student as one or other method proves most practical and easy for a given purpose. When it is considered that the volume covers the intervening ground between vulgar and decimal fractions and the application of trigonometry, differentiation, integration and the use of logarithms, it will be seen that it will meet the needs of most of those who are not specialising in pure mathematics. The book contains a number of exercises and tables of answers by means of which those students who are teaching themselves can test their knowledge.

Technology of Paint and Varnish. By A. H. LABIN, M.S. 2nd ed. 1917. 473 pages. (Chapman & Hall.)

THIS book, the first edition of which will be known to many of our readers, has been entirely revised and a good deal added to it in reference to paints as contrasted with varnishes. Having regard to the fact that the author is a past professor of chemistry, remarkable restraint is shown in the matter of introducing scientific data beyond the knowledge of the layman. The work of a practical man, the information given is of a thoroughly useful character, and at the same time the book is cast in a very readable vein.

Beginning with varnishes, we find three useful chapters on linseed oil, followed by an account of varnish manufacture and a short chapter on tung oil—a substance little used in this country. Driers, resin and spirit varnishes are next dealt with, and also pyroxylin varnishes—while enamels and lacquers next claim discussion. The protection of metals by paint forms the subject of a chapter of 92 pages, wherein the author appears to take the rather unusual view that steel used in re-inforced concrete work should be painted. Great stress is laid on the necessity for clean metal surfaces and good paint for satisfactory and eventually economical results. In discussing pipes, a full account of Dr. Angus Smith's process, so often specified by architects and so little understood by most people, is given. The final chapters are devoted to specific kinds of work—ship painting, carriage and house painting and furniture varnishing. The book may be recommended both to the general reader interested in the subject and also to the architect and enquirer and those who work under their directions.

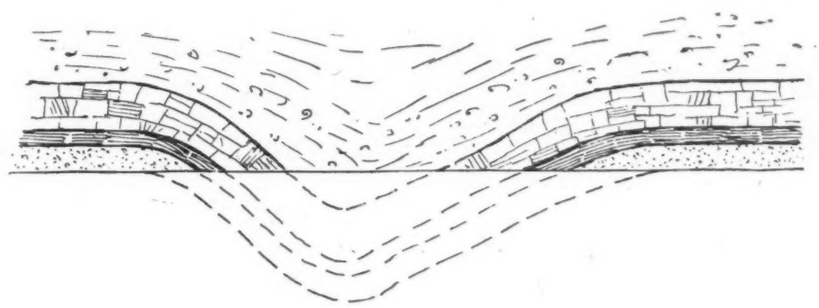
THE BUILDING TRADE.

SCIENCE USEFUL FOR THE MASON.

II.—HOW BUILDING STONES HAVE BEEN FORMED.

IN order really to understand stone it is necessary to have a knowledge of the method of its formation and the history of its origin. Such knowledge will be found to render intelligible many facts relative to its behaviour and weathering properties, its occurrence in different localities and other matters, which, if only studied for each individual kind of stone, give information of a very incoherent nature most laborious to acquire. In this article we shall confine our attention to the formation and occurrence of building stones generally. At first sight it would appear that stones occur in the earth in an entirely haphazard manner. Sandstone, limestone and granite quarries are found in different districts without any relation to one another; some are extensive, some small, in some the stone is very constant and in others changeable. How can the relations of such stones be explained? The face of the country is constantly changing, and a process of wearing away and building up is always in progress. In order to understand these changes it is first necessary to appreciate that they are very slow, and that in our review of stone formation a thousand years are literally as one day. We believe that the earth was originally like the sun and gradually cooled to a sphere solid and cold, at least externally, and it is the external layer or crust with which we are alone concerned. Through this crust from time to time melted matter has broken, sometimes welling out of gaps, sometimes ejected from volcanoes. Some building stones possess such an origin—basalt, for example—and others, like granite, have once been molten though they have never actually flowed out on the earth's surface. Stones of this kind are distinguished by the absence of regularities in their occurrence—that is, they have no bedding planes nor do they lie evenly on their surroundings in the earth, but, as would be expected, they are found breaking through other layers of material and in irregular pockets and masses. Stones of the granite type, however, form only a small part of those used by the mason, and the origin of most other stones is entirely different. The basis of the theory for the formation of those other stones is the supposition that the formations of nature chiefly acting through the instrumentality of moving water, expansion of water on freezing, wind, and plant and animal life, have always remained the same (though often locally more powerful) as we know them as the present time; and though these forces do not make their effects conspicuous to the casual observer, they are none the less very active. It is necessary to realise that the whole of the land is being slowly frittered away and carried into the sea. Estimates based on the rate of flow of rivers and the sediment contained in a given bulk of water have shown that, assuming natural wearing processes continue as at present, the whole of the existing land surface of the earth will be carried away into the sea in about five million years, which is a comparatively short time geologically speaking. What, then, becomes of all this sediment? The answer to this question gives the explanation of stone formation. In the still waters of the oceans and on a small scale in lakes and inland seas, this sediment is deposited as mud and silt in layers or beds, some very thick and constant in composition, others showing local variations with geographical and other changes on the earth, and as these layers increase in thickness they are subjected to the pressure of those above and become hardened and consolidated.

In time they actually fill up the water area into which this sediment is projected, in proof of which it is only necessary to look at the deltas formed by our great rivers, which stretch miles into the sea. Such recent deposits are not consolidated enough to yield building stones, which, however, have been formed by the same process, and are now available on our land surfaces chiefly owing to another important factor not yet touched upon, namely, earth movement. The earth's crust is in constant motion, and extremely slow processes of depression and upheaval are always in progress. That this is the case is proved by the encroachment and recession of the sea, which is often very marked within living memory, as at Cromer and Blackpool respectively. This movement operating through long ages has turned land into sea and sea into land many times over, and has often been accompanied in the past by violent upheavals and depressions, so that beds of stone, which are universally laid down in layers which were approximately horizontal, are often found much tilted and even occasionally standing on end, or even, though only rarely, actually overturned. Now, immediately a land surface makes its appearance above the sea it is at once attacked and wasted away by the ceaseless forces of nature above referred to; hence we find that many beds of stone which were originally continuous but bent into folds due to earth movement, and especially internal earth shrinkage on cooling, are worn away so that only a portion of them remains. By noting the direction of the slope of such beds, or what the geologist terms the "dip," it is possible to tell the direction and extent of the previously existing fold, and very often to connect the existence of similar beds in another part of the country, and even to predict the existence of such beds where they are not already exposed on the surface or in quarries. Thus we find on either side of the Derbyshire limestone district east and west, beds of coal overlaid by grilstones, and those again by sandstones, each group sloping to meet the other and clearly showing, as in Fig. 1, that at one time these beds were continuous, as indicated by the dotted lines in the figure. Actually, of course, the surface of the country does not show the exposed layers of stone in the manner suggested in the figure, but is covered by soil and vegetation; but this layer is seldom more than a few feet in thickness, and below this all the different strata can be examined. We have concentrated our attention on building stones, but all layers of waterborne material are similarly deposited. Thus we find clay, gravel, sand and many rocky beds unsuited for masons' work similarly distributed in layers, sometimes flat and covering wide districts, sometimes bent and worn away, exposing upturned edges, as in the above illustration, and sometimes, again, filling up great basins—ancient lakes—as, for example, the London clay, which is 600 feet thick in places and thins out all round to the chalk and other beds which underlie it. A plan of the country denuded of soil and buildings gives the map of the geologist, which shows how all the great divisions of the earth's crust are arranged at (or just below) its surface. These maps, like the plans of the architect, show varying amounts of detail depending upon their scale. Geological maps of England can be purchased now quite cheaply, and though they do not show individual quarries nor building stones they form a most valuable indication, coupled with a list of strata, as to whereabouts in the country such stones are likely to occur.



Competitions, Contracts, &c.

*****It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.**

BUILDING AND PAINTING.

NO DATE.—**Manchester.**—ALTERATIONS.—For proposed alterations to premises at Denholme, belonging to the Co-operative Society. Names to the Architect's Department, Co-operative Wholesale Society, Ltd., 1, Balloon-street, Manchester.

FURNITURE, MATERIALS, etc.

JANUARY 18.—**London.**—TABLES.—Supply to the Commissioners of His Majesty's Works, &c., of tables. Forms of the Controller of Supplies, H.M. Office of Works, &c., King Charles-street, Westminster, London, S.W. 1.

JANUARY 19.—**Birmingham.**—MATERIALS.—Supply to the Public Works Committee of builders' materials for one year, ending March 31, 1919. Forms at the City Surveyor's Office, Council House, Birmingham. Deposit, £1.

ENGINEERING, IRON AND STEEL.

JANUARY 11.—**Manchester.**—IRON, STEEL &C.—Supply to the Directors of the Manchester Ship Canal Co. of iron, steel, &c., during the six months ending July 31, 1918. Specifications, &c., at the Stores Department, Manchester Docks, Trafford-road, Salford.

JANUARY 16.—**Braintree.**—WATER MAIN.—The U.D.C. invite tenders for the supply of 16 tons 6 in. cast-iron water main. Particulars of Mr. H. H. Nankivell, Surveyor, Vestry Hall, Braintree.

ROAD, SANITARY, AND WATER WORKS.

JANUARY 14.—**Durham.**—TAR SPRAYING.—Durham C.C. Works Committee invite Tenders for tar spraying on the main roads in the County of Durham during the year 1918. The area to be sprayed will be about 500,000 super yards. Specifications, &c., of Mr. Alfred E. Brookes, County Surveyor, Shire Hall, Durham.

JANUARY 31.—**Otley.**—ROAD MATERIALS.—Supply to the U.D.C. of road materials for the year ending March 31, 1919. Specifications, &c., from Mr. O. Holmes, Surveyor to the Council.

Auction Sales.

✱JANUARY 16.—**London.**—Messrs. J. T. Skelding & Co. will sell by auction the whole of a road contractor's plant and stock, including steam road roller, steam tractor, tar-spraying machine, &c., at the Depot, Sefton-street, S.W. Auction offices, 48, Gresham-street, Guildhall, E.C. 2.

✱JANUARY 17.—**Luton.**—Messrs. J. Cumberland & Sons will sell, without reserve, 160 timber trees. May be viewed before the sale. Catalogues of the auctioneers, Luton.

✱JANUARY 22.—**London.**—Messrs. Fuller, Horsey, Sons & Cassell will sell on the premises, Union Wharf, Redhill-street, Regent's Canal Basin, N.W., builder's plant, including well-seasoned timber and hardwood, &c. May be viewed by orders and catalogues had of Messrs. Taylor, Rowley & Lewis, 34 and 36, Gresham-street E.C., and of the Auctioneers, 133, High Holborn, W.C. 1.

✱JANUARY 23.—**London.**—Messrs. Toplis & Harding will sell at the London Commercial Sale Rooms a large quantity of electrical fittings and accessories, &c., glazed Minton tiles, &c., wall-paper and friezes, &c. Catalogues on application to the Auctioneers' offices, 27–28, Old Jewry, E.C.

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the Building Trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Aberdare	11	11	11	11	11	10½	10	8	8	8
Accrington	11½	11½	11	9½	9	10	9½	7	7	7
Altrincham	1/2	1/2	1/2	1/2	1/-	1/1	1/-	10	10	10
Ashton-under-Lyne	1/1	1/2	1/1½	1/1	1/1	1/2	1/-	9½	10	10
Barnsley	1/0½	1/1	1/1½	10½	9	1/-	9½	9½	9½	9½
Barrow-in-Furness	1/1½	1/1	1/1	1/0¾	1/0¾	1/0¾	1/0½	10	10	10
Barry	1/-	1/-	1/-	1/-	—	1/-	11	9	9	9
Bath	11½	11½	11½	11	11	11½	10½	9	9	9
Bedford	11	11	11	11	11	11	9	9	9	9½
Birkenhead	1/2	1/2	1/2	1/1	1/1	1/2	1/1	10½	10½	10½
Birmingham	1/1½§	1/1½§	1/1½§	1/1½§	1/1½§	1/1½§	1/0§	10½§	10½§	10½§
Bishop Auckland	11	11	11	11	1/1½	11	10	8	8	8½
Blackburn	11½	1/0½	1/-	11	11½	1/-	11½	8½	9	9
Blackpool	1/-	11	11	9½	8½	9½	10½	6	6	6
Bolton	1/1	1/2	1/1	11½	11½	1/1	1/0	7½	7½	9
Bournemouth	11	11	11	11	11	11	10½	8½	8½	8½
Bradford	1/1½	1/1½	1/1	1/1½	1/0½	10†	10½†	11	11	11
Bridgwater	8½	8½	8½	8½	8½	8	7½	6	6	6
Brighton	10½	10½	10½	10½	10½	10½	9	8	8	8
Bristol	1/1	1/1	1/1	1/1	—	1/1	1/-	10	10	10
Burnley	11½	11½	1/0½	10½	9	10½	10½	7	7½	7½
Burton-on-Trent	11	11	11	11	11	11	10½	8½	8½	8½
Bury	1/-	1/-	1/2	11	11	1/0½	11½	8	8½	8½
Cambridge	11	10½	10½	10½	10½	11	9	7½	7½	7½
Cardiff	1/-	1/-	1/-	1/-	1/-	1/-	11	9	9	9
Chatham	10	10	10	10	10	10	8½	7	7	7
Chelmsford	8	7½	8½	9	—	7½	6½	5	5	6½
Cheltenham	9½	9½	9½	9½	—	9½	9½	6½*	6½*	6½
Chester	10½	11	11	11	11	11	10	6½	7½	7½
Chesterfield	1/-	1/-	11	11	10	11	10½	8-8½	8-8½	8-8½
Colchester	8	8½	8½	9	8	9	6	5½	5½	5½
Coventry	1/1	1/1	1/1	1/1	1/1	1/1	1/-	10½	10½	11
Crewe	9	9½	10	10½	10	9½	10	7	7	7½
Darlington	1/0½	1/0½	1/0½	1/0½	1/1½	1/-	10½	9½	9½	9½
Derby	1/-	1/-	1/-	1/-	1/-	11½	10½	9	9	9½
Doncaster	10½	1/-	1/-	10½	10½	10	9½	9½	9½	9½
Dudley	9½	1/-	1/-	10	10	9½	8½	9	9	9½
Durham	10½	10½	10½	10½	10½	9½	9	7½	7½	7½
East Glam. and Mon. Valleys	10	10	10	10	—	—	9	7	7	7
Exeter	10	10	10	10	10	10	9	8	8	8
Folkestone	8½	9	9	9½	8½	9	8	7	7	7
Gloucester	10½	11	11	10½	10½	11	10	8½	8½	8½
Grantham	9½	10	9½	9½	10	8½	8	8	7½	8
Grays	—	1/-	1/-	—	—	1/-	10½	—	10	10
Grimsby	11½	11½	1/-	1/-	11	11	10	10	10	10
Great Yarmouth	10	10	10	10	10	10	8½	7	7	7
Halifax	1/-	1/-	1/-	9	9	11	10	9½	9½	9½
Harrogate	10½	9½	11	9	8	1/-	9½	7½	7½	7½
Hartlepools	1/0½	1/1	1/1	1/1	1/1½	10½	9	10	10	10½
Hastings	10	10	10	10	10	10	8½	7	7	7
Hereford	10	10	10	10	10	10	9	7½	7½	7½
Huddersfield	1/1½	1/1½	1/-	1/-	1/-	1/-	11	10	10	10
Hull	1/1	1/1	1/1	1/1	1/1	1/-	11½	11	11	11
Ipswich	10½	10½	10½	11	10½	11	9	8	8	8
Lancaster	1/-	1/-	1/-	11	11	1/-	11	9	9	9
Leamington Spa	10¾	10¾	10¾	10¾	10¾	10¾	9¾	7¾	7¾	7¾
Leeds	1/1½	1/1½	1/1	1/1	1/1	1/2	11½	10½	10½	11
Leicester	1/1	1/1	1/1	1/1	1/1½	1/1	11¾	10½	10½	11
Lincoln	10½	1/-	10½	10½	10½	10½	10	9½	9½	9½
Liverpool	1/2	1/2	1/2	1/2	1/1½	1/2	1/0½	10½	10½	10½
Llanelly	1/1	1/1	1/1	1/1	1/1	1/3	11½	10½	10½	10½
London	1/1½¶	1/1½¶	1/1½¶	1/1½¶	—¶	1/2¶	11¶	10¶	10¶	10¶
Loughborough	10	10	10½	10	10	10	9	8½	8½	9½
Luton	10½	10½	10½	11½	10½	11	9½	8	8½	9
Maidstone	10	10	10	10	10	10	9	7	7	7
Manchester	1/2	1/2	1/2	1/2	1/1	1/2	1/-	10	10½	10½
Mansfield	11	11	10½	11	11	10½	11	8	8	8
Merthyr Tydfil	11	11	11	11	11	11	10	8½	8½	8½
Middlesbrough	1/0½	1/1	1/1	1/1	1/1½	10½	9	10	10	10½
Newcastle-on-Tyne	1/1½	1/1½	1/1½	1/1½	1/1½	10½	11	10½	10½	10½
Newport, Mon.	11½	11½	11½	11½	11½	1/0½	10½	8½	8½	8½
Northampton	11	11	11	11	11	11	10	8½	8½	8½
Norwich	10½	10½	10½	10½	10½	10½	9½	8	8	8
Nottingham	1/1	1/1	1/1	1/1	1/0½	1/1½	11½	10½	10½	11
Oldham	1/1	1/-	1/2	1/-	11	11¼	1/-	8½	8½	9
Oxford	11	10½	10½	10½	10½	10½	9½	8	8	8
Plymouth	11*	11*	11*	11*	10*	10*	8½*	8½	8½	8½
Pontypridd	11	11	11	11	11	11	10	8	8	9
Portsmouth	11½	11½	11½	11½	11½	10½	9½	9	9	9
Preston	1/-	1/0½	11½	1/-	1/-	1/-	11½	8½	9	8½
Reading	10½	10½	10½	11	10½	10½	9	7½*	7½*	7½*
Rochdale	1/-	1/-	1/2	11½	11½	1/0½	1/-	9	9	9½
Rochester	10	10	10	10	10	10	8½	7	7	7
Rugby	11	11	11	11½	1/-	11	10	8	8	9
St. Albans	10	10	10	10	10	10	9	8	8	8½
St. Helen's	1/-	1/-	1/-	1/-	1/-	1/2	10½	7	7½	8
Scarborough	9½	9½	9	9½	9½	9½	8½	7½	7½	7½
Sheffield	1/1½	1/1½	1/1½	1/1	1/1	1/1	1/-	10½	10½	10½
Shrewsbury	8½	11½	11½	9½	—	8½	/	8½	8½	8½
Southampton	11½	11½	11½	11½	11½	11½	10½	8½	8½	8½
Southend-on-Sea	10	10	10	10	P'cework	10	9	8	8	8
Southport	11½	11	11½	11	11	11	11	7	7½	7½
South Shields	1/1½	1/1½	1/1½	1/1½	1/1½	10½*	11	10½	10½	10½
Stockport	1/2	1/1½	1/1½	11½	10½	1/2	11½	9½	10	10
Stockton-on-Tees	1/0½	1/1	1/1	1/1	1/1½	10½	9	10	10	10½
Stoke-on-Trent	11½	11½	11½	11½	—	10½	10½	8½	8½	8½
Stroud	9½	9½	9½	9½	9½	9½	9	7½	7½	7½
Sunderland	1/1	1/1½	1/1	1/1	1/1½	9½	11	10	10	10
Swansea	1/1	1/1	1/1	1/1	1/1	1/2	1/0½	10	10	10
Taunton	9	9	9	9	9	9	8	6½	6½	6½
Torquay	10	10	10	10	10	10	10	8	8	8
Wakefield	10	1/-	11½	1/-	1/-	1/1	10	9½	9½	9½
Walsall	11½	11	11	11	11	11	9½	8½	8½	8½
Warrington	11½	1/0½	1/0½	1/1	1/1	1/0½	11½	8½	9	8
West Bromwich	11	11	10½	10½	—	10	9	8	8	8
Wigan	1/0½	1/1	1/0½	1/-	11½	1/0½	11½	10	10	10½
Windsor	1/-	1/-	1/-	1/-	1/-	1/-	10½	9	9	9
Wolverhampton	1/-§	1/-§	1/-§	1/-§	1/-§	1/-§	10½§	9§	9§	9§
Worcester	9½	10	10	10	10	10	8½	7½	7½	7½
York	1/-	1/-	1/-	1/-	1/-	10½	9½	9½	9¾	9½

The Masons' rate given is for bankers; fixers usually ½d. per hour extra.
* War bonus of 2s. per week granted. †War bonus of 3s. per week granted. ‡War bonus of 3s. 6d. per week granted.
‖ War bonus of 6s. per week granted. § 1½d. per hour extra for men engaged on munition work.
¶ 1½d. per hour extra for men engaged on munition work.

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; L.G.B. for Local Government Board; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

BOLTON.—The borough engineer has been instructed to arrange for the construction of a line of pipes from a point in Weston-street, opposite Viking-street, along Weston-street and Manchester-road to the Jenny Beck culvert at an estimated cost of £2,300.—Alterations to the Theatre Royal and the Grand Theatre are proposed.—Plans passed:—Alterations to shed, Mornington-road, for the Musgrave Spinning Co., Ltd.; sanitary improvement, Albion Mills, Sidney-street, for J. Marsden & Sons, Ltd.; motor garage and shed, 19, Grange-road, for Mr. W. Brimslow; explosive store, Bradshaw Hall Colliery, for Messrs. S. Scowcroft & Sons; extension to leather works, Back Bury-road, for Messrs. Moses Yates & Sons.

BRADFORD.—The Electricity Committee is proposing to erect a new generating works on a site in the Esholt Estate, subject to an arrangement with the Sewage Committee, and the engineer has been instructed to prepare plans with a view to the same being put before the L.G.B.—The Street and Improvements Committee have approved of the plans of dwelling houses proposed to be erected in substitution of those displaced or about to be displaced in carrying out improvements in Victoria-road.

CARNARVON.—Plans passed by T.C.:—Alterations, 46, Mountain-street, for the Welsh Housing Pioneer, Ltd.

CHELTENHAM.—A surface water drain is to be laid in Moorend Park-road at a cost of £235.—Plans passed:—Additions to Star Hotel, Regent-street, for the Cheltenham Original Brewery Company.

DEPTFORD.—Plans passed by B.C.:—Erection of lavatory and mess room, Silwood-street, for the Silwood Construction Company.

HACKNEY.—The B.C. has received applications for permission to execute works as follows:—G. J. Money, to build and drain a one-story workroom on a part of the forecourt of 111, Dalston-lane; also to build and drain three water-closets, and to execute works of drainage in connection with existing buildings and premises; F. Bull, to build and drain a bathroom addition to 40, Oldhill-street; W. and F. Yeowell, to execute works of drainage at the five dwelling-houses, 12, 14, 16, 18, and 20, High-street, Homerton.

LAMBETH.—Sanitary accommodation and petrol store, 196, Hercules-road, Mr. T. A. Powell, of Messrs. Beck & Pollitzer.

LEICESTER.—The Highway Committee since June last have approved plans for 170 additions and alterations, two new houses, twenty-four sheds, three shop fronts, four warehouses, and three special buildings—206. They have also made a purchase of 25½ square yards of land for the widening of Burley's-lane.

MANCHESTER.—Plans passed:—Additions to dwelling house, 65, Palatine-road, Withington; coke store to works, Briscoe-lane, Newton Heath; cloak room, works, Burnage-lane; motor shed, Lloyd-road, Levenshulme; office and store to works, North-street, Openshaw; conveniences to warehouse, Whitworth-street and Atwood-street; offices, Spring-gardens, Fountain street, and West Mosley-street; bakehouse to premises, Parrot-street, Clayton; smithy to works, Wilson-street, Clayton; three stores to works, Cycle-street and Wilson-street, Clayton; foundry to works, Clapham-street, Moston; sulphur store to works, Bank-street, Clayton; addition to mercurising shop to works, Monsall-road, Newton Heath; singeing room to works, Heaton-park-road, Blackley.—The L.G.B. has sanctioned the borrowing of £11,800 for additional accommodation to be provided at Elm-street and Smithfield Cold Stores.

NORTHAMPTON.—Plans approved:—Drainage for tannery, Houghton-road, for Messrs. J. Collier & Co., Ltd.; new conveniences, No. 11, College-street, for Mr. Taylor; alterations at factory, Victoria-street, for Messrs. F. Bostock, Ltd.; dining-room, &c., at factory, Adnitt-road, for Messrs. J. Sears & Co., Ltd.; temporary motor shed, Barry-road, for Messrs. J. Sears & Co., Ltd.

PORTSMOUTH.—Plans passed by T.C.:—Extension of brewery, King-street, for Portsmouth United Breweries, Ltd.; alterations, "Portsea" Arms, Union-street, Portsea, for Messrs. Brickwood & Co.; lavatory, Kent-road, Southsea, for the Churchwardens of St. Judes Church; shed, Goldsmith-avenue, Southsea, for the Anglo-American Oil Company; additions, 24, Ashburton-road, Southsea, for Mr. F. J. Privett; additions, 30, Osborne-road, Southsea, Mr. F. J. Privett for Mr. H. M. Hodges.—The engineer is to construct a concrete wall on the bank near the Chemical Works at Tipson.

ROTHERHAM.—It was reported to the T.C. that negotiations are proceeding with the Earl of Effingham's estate agents relative to the acquisition of a site for a housing scheme.

SALFORD.—The Finance Committee of the T.C. is being asked to approve of an estimate of £700 for the

* See also our list of Competitions, Contracts, &c., on p. 43.

(*Continued on page* 46.)

PRICES CURRENT OF MATERIALS.

(Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. Since our last issue several revisions have been made —Ed.)

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

Per 1,000 Alongside, in River Thames.	£ s. d.
Best Stocks	2 10 0
Picked Stocks for Facings	3 5 0

Per 1000, Delivered at Railway Depot, London.	£ s. d.		£ s. d.
Flettons	2 3 0	Best Blue Pressed Staffordshire	6 5 0
Best Fareham Red	4 0 0	Do. Bulinose	6 10 0
Best Red Pressed Ruabon Facing	6 0 0	Best Stourbridge Fire bricks	9 5 0
GLAZED BRICKS—			
Best White, Ivory, and Salt Glazed Stretchers	14 17 6	D'ble Str'tch'rs	20 7 6
Headers	14 7 6	D'ble Headers	17 7 6
Quoins, Bullnose and 4½in. Flats	18 7 6	One Side and two Ends	21 7 6
		Two Sides and one End	22 17 6
		Splays and Squints	19 17 6

Glazed bricks priced at so much each, 25 per cent. advance on list.

Second Quality, £1 per 1,000 less than best.

	s. d.	
Thames Ballast	9 9	per yard, delivered
Pit Sand	12 6	
Thames Sand	13 6 ,, ,,	2 miles
Best Washed Sand	14 0 ,, ,,	radius
¾ in. Shingle for Ferro-Concrete	12 0 ,, ,,	Paddington.

Per ton, delivered.

	£ s. d.		£ s. d.
Best Portland Cement	2 15 0 ..		2 18 0

Do. £2 11s. 0d. alongside in 80-ton lots.
Ferroconcrete 2s. 6d. per ton extra on above.
Best Ground Blue Lias Lime 1 13 6 at rly. depot.
NOTE.—The cement or lime is exclusive of the ordinary charge for sacks. The sacks are charged at 2s. 3d. each and credited at 2s. each if returned in good condition within three months.
Grey Stone Lime ..... 47s. 0d. per ton delivered.
Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	1 7
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	1 8½
Do. do. delivered on road waggons at Nine Elms Depot	1 9½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Westbourne Park, G.W.R., South Lambeth, G.W.R., or Nine Elms, or L. & S.W.R., per ft. cube	2 5½
Do. do. delivered on road waggons at Pimlico Wharf or Nine Elms Depot, per ft. cube	2 6½
White basebed, 2d. per ft. cube extra.	
RANDOM BLOCKS—Per Ft. Cube, delivered at Rly. Dpot.	s. d.
Ancaster in blocks	2 0
Beer in blocks	1 7½
Grinshill in blocks	2 4
Darley Dale in blocks	2 5
Closeburn Red Freestone	2 2
Red & White Mansfield random block	2 9
Yellow Magnesian Limestone do. do	3 3
YORK STONE—*Robin Hood Quality.* Delivered at any Goods Station London.	s. d.
Scappled random blocks ..... Per Ft. Cube	3 11
6 in. sawn two sides landings to sizes (under 30 ft. super.) ..... Per Ft. Super	3 0
6 in. rubbed two sides, ditto ..... ,,	3 4
3 in. sawn two sides slabs (random sizes) ,,	1 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... ,,	0 10
1¼ in. to 2 in. ditto, ditto ..... ,,	0 8½
HARD YORK— Delivered at any Goods Station London.	
Scappled random blocks ..... Per Ft. Cube	3 6
6 in. sawn two sides landing to sizes (under 40ft. super.) ..... Per Ft. Super	2 8
6 in. rubbed two sides ditto ..... ,,	2 4
3 in. sawn two sides slabs (random sizes) ,,	1 3
2 in. self-faced random flags ..... ,,	0 5½

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles or hand-made sand-faced tiles from either Broseley or Staffordshire district	3 0 0
Ornamental ditto	3 2 6
Hip and valley tiles (per dozen)	0 6 0

SLATES.

	Per 1,000 of 1,200 f.o.r. London. £ s. d.
Best Blue Bangor Slates, 20 by 10	13 5 0
,, ,, ,, 16 by 8	6 12 6
First quality ,, ,, 20 by 10	12 15 0
,, ,, 16 by 8	6 10 0
Best Blue Portmadoc 20 by 10	13 5 0
,, ,, 16 by 8	6 12 6
First quality ,, 20 by 10	12 12 6
,, ,, 16 by 8	6 7 6

WOOD.

BEST BUILDING REDWOOD. Imported sizes.
Deals: 4 in. by 12 in., 4 in. by 11 in., 3 in. by 11 in., 4 in. by 9 in., and 2 in. by 11 in. .....
3 in. by 9 in., 2½ in. by 9 in., and 2 in. by 9 in. .....

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn

WOOD (*Continued*).

BEST BUILDING REDWOOD.
Battens: 2 in., 2½ in., and 3 in. by 8 in. .....
2 in., 2½ in., and 3 in. by 7 in. .....
2 in., 2½ in., and 3 in. by 6 in. .....
Scantlings: 2 in. by 3 in., 2 in. by 3½ in., 2 in. by 4 in., 2 in. by 4½ in. ...
3 in. by 4 in., and 3 in. by 4½ in. .....
Boards: 1 in., 1¼ in., and 1½ in. by 6 in. and 7 in. .....
¾ in. .....
Seconds .....
Sawn pitch pine logs (about 35 cu. ft. average .....
Do. 6 in. to 10 in. ..

Best Pitch Pine Deals ...
Under 2 in. thick .....

JOINERS' WOOD
White Sea First Quality Red: 4 in. by 11 in...
3 in. by 11 in., and 2 in. by 11 in. .....
4 in. by 9 in. .....
3 in. by 9 in., and 2½ in. by 9 in. .....
3 in. by 11 in. boards ..
7 in. and 8 in. battens ..
7 in. and 8 in. boards ...
Archangel White Deals—
Best 3 in. by 9 in. and 10 in. and 11 in. .....
Seconds, do. .....
U.S. Battens .....
Prepared Floorings and Matchings. Seconds
Swedish Red and equal—
1¼ in. by 6¼ in. planed and shot .....
1¼ in. by 6¼ in. planed and matched .....
1 in. by 6¼ in. planed and shot .....
1 in. by 6¼ in. planed and matched .....
¾ in. by 6¼ in. planed, matched, and beaded, or V jointed .....
1 in. by 6¼ in. do. .....
Columbian or Oregon Pine, best quality .....
Yellow Pine—First regular sizes .....
Oddments .....
Seconds, regular sizes ..
Oddments .....
Kauri Pine—Planks per ft. cube.....

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn.

Dry Wainscot Oak, per ft. super, as inch	0	1	6	..	0	2	0
¾ in. do. do.	0	1	3	..	0	1	6
Dry Mahogany—Honduras, Tabasco, per ft. super, as inch	0	2	0	..	0	3	0
Cuba. Mahogany	0	2	6	..	0	3	6
Dry Walnut, American, per ft. super, as inch	0	2	0	..	0	3	0
French, "Italian," Walnut	0	3	0	..	0	5	0
Teak, per load (Rangoon or Moulmein)	45	0	0		60	0	0
Do. do. (Java)							
American Whitewood planks, per ft. cube	0	18	0	..	1	1	0
Glue, per cwt.	5	15	0	..	6	0	0

METALS.

JOISTS, GIRDERS, &c.

Rolled Steel Joists, ordinary sections, basis price .....
Plain Compound Girders, ordinary sections .....
Plain Compound Stanchions
Angles, Tees, and Channels, ordinary sections .....
Flitch Plates .....
Cast Iron Columns and Stanchions, plain ordinary patterns .....

Prices controlled by the Ministry of Munitions.

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £4 net value delivered direct from works. 5 per cent. less carriage forward if sent from London stocks.)

	Tubes.	Fittings.
Gas	42½	47½
Water	37½	45
Steam	32½	42½
Galvanised gas	25	40
,, water	16	37½
,, steam	10	35

L.C.C. SOIL PIPES— London Prices ex works.

Pipes coated.	s. d.		Bends, stock angles. s. d.		Branches, stock angles s. d.
2 in. per yd. in 6 fts.	3 2	..	2 4½	..	2 10½
2½ in. ,, ..	3 8	..	2 7½	..	3 7
3 in. ,, ..	4 6	..	2 10½	..	4 3½
3½ in. ,, ..	5 0	..	3 7	..	5 0
4 in. ,, ..	5 6	..	4 1	..	5 9½

RAIN-WATER PIPES, &c.

Pipe.	s. d.		Bends, stock angles. s. d.		Branches, stock angles s. d.
2 in. per yd. in 6fts. plain	2 3½	..	1 4	..	1 9
2½ in. ,, ,, ..	2 5	..	1 7	..	2 2
3 in. ,, ,, ..	2 10½	..	1 11	..	2 10
3½ in. ,, ,, ..	3 5½	..	2 3	..	3 3
4 in. ,, ,, ..	3 9½	..	2 9	..	4 0

L.C.C. DRAIN PIPES,—9 ft. lengths. London Prices. 4 in., 6s. 3d. .. 5 in., 7s. 9d. .. 6 in., 9s. 2d.

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common Bars	16 10 0	to	17 0 0
Staffordshire Crown Bars—good merchant quality	16 10 0	..	17 10 0
Staffordshire "Marked Bars"	17 10 0	..	18 0 0
Mild Steel Bars	19 0 0	..	19 10 0

METALS (*Continued*).

	Per ton in London. £ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, £19 basis price.			
Hoop Iron, basis price	20 10 0	..	21 0 0
,, ,, Galvanised	33 0 0	..	—
(* And upwards, according to size and gauge.)			
Sheet Iron Black—			
Ordinary sizes to 20 g.	22 10 0	..	23 0 0
,, ,, 24 g.	23 10 0	..	24 0 0
,, ,, 26 g.	24 10 0	..	25 0 0
Sheet Iron, Galvanised flat, ordinary quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	34 0 0	..	—
Ordinary sizes to 22 g. and 24 g.	34 0 0	..	34 10 0
Ordinary sizes to 26 g.	36 0 0	..	36 10 0
Sheet Iron, Galvanised, flat, best quality—			
Ordinary sizes to 20 g.	35 10 0	..	—
,, ,, 22 g. and 24 g.	36 0 0	..	—
Ordinary sizes to 26 g.	39 0 0	..	—
Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 8 ft. 20 g.	33 0 0	..	—
Ordinary sizes, 22 g. and 24 g.	33 10 0	..	—
Ordinary sizes, 26 g.	32 10 0	..	—
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	24 10 0	..	—
Best Soft Steel Sheets, 20 g. and 24 g.	24 15 0	..	—
Best Soft Steel Sheets, 26 g.	26 10 0	..	—
Cut Nails, 3 in. to 6 in.	28 0 0	..	29 0 0
(Under 3 in., usual trade extras.)			

LEAD, &c.

Delivered in London.	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	38 10 0	..	—
Pipe in coils	39 0 0	..	—
Soil Pipe	42 0 0	..	—
Compo pipe	42 0 0	..	—

NOTE—Country delivery, 20s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra. Orders for over 1 cwt. Sheet Lead or Pipe, or 28 lbs. Solder should be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N.2 (E)], Hotel Victoria, S.W. Smaller quantities than the above can be obtained by making a written declaration to the Manufacturer or Merchant that the metal is wanted for urgent renewals or repairs, and giving the name of the job for which it is required.

COPPER—					
Strong Sheet ....per lb.	0	2	2	..	—
Thin ,, ... ,,	0	2	3	..	—
Copper nails .... ,,	0	2	2	..	—
Copper wire .... ,,	0	2	3	..	—
TIN—English Ingots ,,	0	2	11	..	—
SOLDER—Plumbers' ,,	0	1	4	..	—
Tinmen's ,,	0	1	9	..	—
Blowpipe ,,	0	1	11	..	—

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft		Per Ft.
15 oz. fourths 7d	32 oz. fourths	9d.
,, thirds ..... 7½d.	,, thirds	10d.
21 ,, fourths 7½d	Fluted, Obscured and	
,, thirds ..... 8d.	Enamelled Sheet.	
26 ,, fourths .. . 8d.	15 oz.	7½d.
,, thirds ..... 9d.	21 ,,	8½d.

Extra price according to size and substance for squares cut from stock, and only small quantities can be supplied without an A Certificate.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled and rough cast plate	5½d.
¼ Rough rolled and rough cast plate	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6d.
Ditto, tinted	7d.
Rolled Sheet	5d.
White Rolled Cathedral	5d.
Tinted do.	5½d.

PAINTS, &c.

	£ s. d.
Raw Linseed Oil in pipes..... per gallon	0 5 6
,, ,, ,, in barrels .... ,,	0 5 7
,, ,, ,, in drums .... ,,	0 5 10
Boiled ,, ,, in barrels .... ,,	0 5 10
,, ,, ,, in drums .... ,,	0 6 1
Turpentine in barrels ..... ,,	0 10 6
,, in drums ..... ,,	0 10 9
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	53 10 0
GENUINE WHITE LEAD PAINT— "Blackfriars," "Nine Elms," "Park," and other best brands (in 14 lb. tins) not less than 5 cwt. lots. per ton delivered	71 10 0
Red Lead, Dry (packages extra) .. per ton	42 0 0

Orders for White and Red Lead and any Paint containing Lead must be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N. 2 (E.)], Hotel Victoria, S.W.

Best Linseed Oil Putty ..... per cwt.	0 15 6
Filocol..... per cwt.	0 13 6

VARNISHES, &c.

	Per gallon. £ s. d.
Fine Pale Oak	0 10 0
Pale Copal Oak	0 12 0
Superfine Pale Elastic Oak	0 14 0
Fine Extra Hard Church Oak	0 12 6
Superfine Hard-drying Oak, for seats of Churches	0 16 0
Fine Elastic Carriage	0 14 6
Superfine Pale Elastic Carriage	0 18 0
Fine Pale Maple	0 12 0
Finest Pale Durable Copal	1 0 6
Extra Pale French Oil	1 1 0
Eggshell Flatting	1 0 0
White Pale Enamel	1 6 0
Extra Pale Paper	0 14 0
Best Japan Gold Size	0 10 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 0
Berlin Black	0 16 0
Knotting	1 7 6
French and Brush Polish	0 16 0

(*Continued from page* 44.)

erection of a public mortuary at the rear of the Pendleton Town Hall. Plans have been passed for works at Seaford-road, Hampton-road and Broughton-road; alterations and additions at works, Weaste-road South, Pendleton; for construction of office, stable, store, and sanitary conveniences, premises, Adelphi-street and Norris-street, Salford; sanitary accommodation, premises, Broad-street, Pendleton; drying stores, &c., premises, Eccles New-road, Pendleton; drying stove and store, Picton-street, Broughton; warehouse, Great Clowes-street and Harrison-street, Broughton. Permission has been given to Mandleberg & Co., Ltd., to commence the erection of premises on land bounded by Harpton-street and Blandford-road.

SOUTH SHIELDS.—Sketch plans by the acting borough engineer for accommodation for out- and in-patients to be erected on land adjoining the Deans Hospital have been approved by the Sub-Committee concerned.

WALLASEY.—Application is being made to the L.G.B. for sanction to borrow £11,150 for the purchase and levelling of 67,800 square yards of land between Mill-lane and Love-lane, Poulton, as a site for the erection of working-class dwellings.

WANDSWORTH.—Works approved by the B.C.:—Partial re-drainage of Craigleith, Kersfield-road Putney, for Mr. J. Hudson; erection of sanitary accommodation at and partial re-drainage of their works, Langroyd-road, at rear of 107, Trinity-road, Balham, S.W., for Messrs. W. H. Lorden & Son, Ltd; re-drainage of 8 and 10, Glenburnie-road, Balham, for Mr. S. Stimpson; re-drainage of "The Cottage," Wandsworth-road Station, Clapham North, for Messrs. Holliday & Greenwood, Ltd.; construction of inspection chamber in front of and partial re-drainage of 807, Wandsworth-road, Clapham North, for Mr. H. S. Bull

The Increase of Wages.

With reference to the graph showing increase in wages in the building trade from January, 1913, to date, which we gave in our last issue (page 27), we did not state that it applied only to London, but we think this was obvious.

An Invitation.

The Aeronautical Institute of Great Britain, 3, Arlington-street, St. James's, London, write to us stating that they are convinced that there are great untapped sources of highly-trained engineering labour and machinery which might be utilized to produce aircraft at the Front. All information relating to the matter, which is communicated to the Honorary Director of the Institute, will be placed at the disposal of the authorities in order to expedite the conduct of the war. This invitation is especially meant to include all engineers, woodworkers and the heads of workshops of allied trades who feel they can undertake the construction of aircraft parts, with or without instruction. We are sure that many of our readers will be in a position to help the Aeronautical Institute with information and particulars and would urge them to help a useful and urgent object.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 12 *noon on Wednesday.*

* Denotes *accepted.* † Denotes *provisionally accepted.* ‡ Denotes *recommended for acceptance.*

BOLTON.—The following tenders have been accepted by the T.C.:—
W. & F. Davis—Pick and striking hammer shafts.
Buxton Lime Firms Co., Ltd.—Lime for sewage works.
J. & J. Lee—Hydraulic lime.
J. Walker & Co.—Iron and steel.

BRADFORD.—Supply of granite setts, for the Corporation:—
*Mountsorrel Granite Co., Ltd., 41s. 1d. per ton.

DERBY.—Accepted by the T.C. for the supply of boiler, &c.:—
Babcock & Wilcox, Ltd., boiler, £4,500; C. A. Parsons, Ltd., 4,000 kw. turbo-alternator, £24,000; T. W. Brackett & Co., Ltd., water screen, £555; Firth, Blakeley, Sons & Co., Ltd., chimney, £230; Holmes Bros., Ltd., tramcar wheel tires, £53.

JOHANNESBERG.—For supply of water meters to the Municipal Council:—
*British Agencies, Ltd. £620

MANCHESTER.—The following tenders have been accepted by the Corporation:—
For Cleansing Committee.
*Buxton Lime Firms Co.—Lime.
*Baxendale & Co.—Glass and lead.
Education Committee.
*A. H. Kay—Painting Webster-street Municipal School.
For Gas Committee.
*E. Rhind & Co., Manchester—Brass taps, &c.
*S. Goratix, jun., & Baker, Manchester—Glass.
*J. E. Williams & Co., Manchester—Paints.
* E. Le Bas & Co., London—Malleable fittings.
*J. Russell & Co., Manchester—Tubes and fittings.
*Stockton Heath Forge, Warrington—Spades and shovels.
*Walkers, Parker & Co., Chester—Red and white lead.

SALFORD.—For the installation of new heating boiler at St. Luke's School, for the Education Committee:—
*G. Dawson & Son, Salford £36 5

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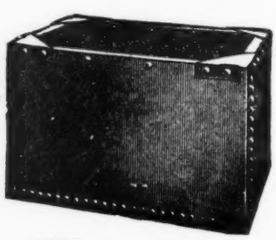
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